

# Contenido

[Introducción](#)

[Antes de comenzar](#)

[Convenciones](#)

[prerrequisitos](#)

[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](#).

### [prerrequisitos](#)

No hay requisitos previos específicos para este documento.

### [Componentes Utilizados](#)

La información en este documento se basa en los Software Release 11.2 y Posterior de Cisco

IOS®.

La información que se presenta en este documento se originó a partir de dispositivos dentro de un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). 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 de interconexión de redes de marcación manual, seleccione el nombre de la conexión, entonces **File (Archivo) > Properties (Propiedades)**.
2. En la ficha de tipo de servidor, vea si el **cuadro de contraseña encriptada del requerir** debajo del tipo de servidor de marcado manual se marca. Si se marca este cuadro, significa que el PC valida solamente la autenticación CHAP. Si este cuadro no se marca, significa que el PC valida el PAP o la autenticación CHAP.

### Windows NT

Siga las instrucciones detalladas a continuación.

1. En la ventana del dial-up networking, seleccione el nombre de la conexión, y después seleccione el **File (Archivo) > Properties (Propiedades)**.
2. Marque las configuraciones en la ficha de seguridad: Si el **Accept any authentication incluyendo el clear text box** se marca, éste significa que el PC valida el PAP o la GRIETA. Si se marca el cuadro de la **autenticación encriptada del validar solamente**, el PC valida solamente la autenticación CHAP.

### Windows 98

Siga las instrucciones detalladas a continuación.

1. En la ventana del dial-up networking, seleccione el nombre de la conexión, y después seleccione las **propiedades**.
2. En los tipos de servidor tabule, marque las configuraciones en el área avanzada de las opciones: Si se desmarca el **cuadro de contraseña encriptada del requerir**, éste significa que el PC valida el PAP o la autenticación CHAP. Si se marca el **cuadro de contraseña encriptada del requerir**, éste significa que el PC valida solamente la autenticación CHAP.

### Windows 2000

Siga las instrucciones detalladas a continuación.

1. En la red y las conexiones por línea telefónica, seleccione el nombre de la conexión, y

después seleccione las **propiedades**.

2. En la ficha de seguridad, marque las configuraciones en el **avanzado > las configuraciones > permiten éstos protocols area (Área de protocolo)**: Si se marca el cuadro de la **contraseña sin encriptación (PAP)**, el PC valida el PAP. Si se marca el cuadro del **Challenge Handshake Authentication Protocol (CHAP)**, el PC valida la GRIETA por el [RFC 1994](#). Si se marca el cuadro del **Microsoft CHAP (MS-CHAP)**, el PC valida la versión MS-CHAP 1 y no valida la GRIETA por el 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  
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  
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 antedicha y pegue estos comandos adentro, según lo dictado por su Cisco IOS Release.

#### Cisco IOS 11.3.3.T hasta 12.0.5.T

```
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 localaaa authentication ppp default if-needed radius
localaaa authorization exec radius if-authenticatedaaa authorization network radius if-
authenticated!enable secret 5 $l$pkX.$JdAySRElSbdbDe7bj0wyt0enable password ww!username john
password 0 doeusername cse password 0 csecseip host rtpkrb 10.31.1.5ip domain-name
RTP.CISCO.COMip name-server 171.68.118.103!interface Loopback0ip address 1.1.1.1
255.255.255.0!interface Ethernet0ip address 10.31.1.5 255.255.0.0no mop enabled!interface
Serial0no ip addressno ip mroute-cacheshutdown!interface Serial1no ip addressshutdown!interface
Asyncl1unnumbered Ethernet0encapsulation pppasync mode dedicatedpeer default ip address pool
asyncl1no cdp enableppp authentication pap!ip local pool asyncl1 15.15.15.15ip classlessip route
0.0.0.0 0.0.0.0 10.31.1.1!snmp-server community public RWsnmp-server host 171.68.118.100 traps
publicradius-server host 171.68.118.101 auth-port 1645 acct-port 1646radius-server key
cisco!line con 0line 1session-timeout 20 exec-timeout 20 0password wwautoselect during-
loginautoselect pppmodem InOuttransport input allstopbits 1speed 38400flowcontrol hardwareline
2modem InOutspeed 38400flowcontrol hardwareline 3 16line aux 0line vty 0 4exec-timeout 0
0password ww!end

```

## Cisco IOS 12.0.5.T y posterior

```

Current configuration:
!version 11.2service 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 localaaa authentication ppp default if-needed radius
localaaa authorization exec radius if-authenticatedaaa authorization network radius if-
authenticated!enable secret 5 $l$pkX.$JdAySRElSbdbDe7bj0wyt0enable password ww!username john
password 0 doeusername cse password 0 csecseip host rtpkrb 10.31.1.5ip domain-name
RTP.CISCO.COMip name-server 171.68.118.103!interface Loopback0ip address 1.1.1.1
255.255.255.0!interface Ethernet0ip address 10.31.1.5 255.255.0.0no mop enabled!interface
Serial0no ip addressno ip mroute-cacheshutdown!interface Serial1no ip addressshutdown!interface
Asyncl1unnumbered Ethernet0encapsulation pppasync mode dedicatedpeer default ip address pool
asyncl1no cdp enableppp authentication pap!ip local pool asyncl1 15.15.15.15ip classlessip route
0.0.0.0 0.0.0.0 10.31.1.1!snmp-server community public RWsnmp-server host 171.68.118.100 traps
publicradius-server host 171.68.118.101 auth-port 1645 acct-port 1646radius-server key
cisco!line con 0line 1session-timeout 20 exec-timeout 20 0password wwautoselect during-
loginautoselect pppmodem InOuttransport input allstopbits 1speed 38400flowcontrol hardwareline
2modem InOutspeed 38400flowcontrol hardwareline 3 16line aux 0line vty 0 4exec-timeout 0
0password ww!end

```

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

**Nota:** En la salida de los debugs, el texto en **negrita** resalta los problemas en el debug. El sólo texto indica un debug correcta.

```

rtpkrb#rtpkrb#sho debGeneral OS:AAA Authentication debugging is onAAA Authorization debugging is
onPPP:PPP authentication debugging is onPPP protocol negotiation debugging is onRadius protocol
debugging is onrtpkrb#4d02h: As1 LCP: I CONFREQ [Closed] id 0 len 204d02h: 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 Asyncl1, changed state to up4d02h: As1 PPP: Treating connection
as a dedicated line4d02h: As1 PPP: Phase is ESTABLISHING, Active Open4d02h: As1 LCP: O CONFREQ
[Closed] id 85 len 244d02h: 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 12As1 LCP:
AuthProto 0xC123 (0x0308C12301000001)As1 LCP: O CONFREQ [REQsent] id 99 len 24As1 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 CONFREQ [REQsent] id 99
len 8As1 LCP: AuthProto PAP (0x0304C023)As1 PPP: Closing connection because remote won't
authenticate4d02h: As1 LCP: I CONFACK [REQsent] id 85 len 244d02h: 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 204d02h: 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 204d02h: 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 Open4d02h: As1 PPP: Phase is  
AUTHENTICATING, by this end4d02h: As1 PAP: I AUTH-REQ id 14 len 19 from "ddunlap"4d02h: As1 PAP:  
Authenticating peer ddunlap4d02h: AAA/AUTHEN: create\_user (0x15AD58) user='ddunlap' ruser=''  
port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=14d02h: AAA/AUTHEN/START  
(1953436918): port='Async1' list='' action=LOGIN service=PPP4d02h: AAA/AUTHEN/START  
(1953436918): using "default" list4d02h: AAA/AUTHEN (1953436918): status = UNKNOWN4d02h:  
AAA/AUTHEN/START (1953436918): Method=RADIUS4d02h: RADIUS: Initial Transmit id 7  
171.68.118.101:1645, Access-Request, len 774d02h: Attribute 4 6 0A1F01054d02h: Attribute 5 6  
000000014d02h: Attribute 6 1 6 000000004d02h: Attribute 1 9 6464756E4d02h: Attribute 2 18  
7882E0A54d02h: Attribute 6 6 000000024d02h: Attribute 7 6 00000001Radius server is down -  
produces ERROR - since user is not in local database, failover to local FAILSAs1 PAP: I AUTH-  
REQ id 16 len 19 from "ddunlap"As1 AUTH: Duplicate authentication request id=16 already in  
progressAs1 PAP: I AUTH-REQ id 17 len 19 from "ddunlap"As1 AUTH: Duplicate authentication  
request id=17 already in progressRADIUS: Retransmit id 9As1 PAP: I AUTH-REQ id 18 len 19 from  
"ddunlap"As1 AUTH: Duplicate authentication request id=18 already in progressAs1 PAP: I AUTH-REQ  
id 19 len 19 from "ddunlap"As1 AUTH: Duplicate authentication request id=19 already in  
progressAs1 PAP: I AUTH-REQ id 20 len 19 from "ddunlap"As1 AUTH: Duplicate authentication  
request id=20 already in progressRADIUS: Retransmit id 9As1 PAP: I AUTH-REQ id 21 len 19 from  
"ddunlap"As1 AUTH: Duplicate authentication request id=21 already in progressAs1 PAP: I AUTH-REQ  
id 22 len 19 from "ddunlap"As1 AUTH: Duplicate authentication request id=22 already in  
progressRADIUS: Retransmit id 9As1 PAP: I AUTH-REQ id 23 len 19 from "ddunlap"As1 AUTH:  
Duplicate authentication request id=23 already in progressAs1 LCP: I TERMREQ [Open] id 1 len 8  
(0x000002CE)As1 LCP: O TERMACK [Open] id 1 len 4As1 PPP: Phase is TERMINATINGRADIUS: No response  
for id 9%RADIUS-3-ALLDEADSERVER: No active radius servers found. Id 9.RADIUS: No response from  
serverAAA/AUTHEN (3025998849): status = ERRORAAA/AUTHEN/START (3025998849):  
Method=LOCALAAA/AUTHEN (3025998849): status = FAILKey in router does not match that of  
server:RADIUS: Received from id 21 171.68.118.101:1645, Access-Reject, len 20RADIUS: Reply for  
21 fails decryptNT client sends 'DOMAIN\user' and Radius server expects 'user':RADIUS: Received  
from id 11 171.68.118.101:1645, Access-Reject, len 20AAA/AUTHEN (1406749115): status = FAILAs1  
PAP: O AUTH-NAK id 25 len 32 msg is "Password validation failure"As1 PPP: Phase is  
TERMINATINGAs1 LCP: O TERMREQ [Open] id 108 len 4AAA/AUTHEN: free\_user (0xDA520)  
user='CISCO\ddunlap' ruser='' port='Async1' rem\_addr='async' authen\_type=PAP service=PPP  
priv=1Radius 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  
20AAA/AUTHEN (733718529): status = FAILAs1 PAP: O AUTH-NAK id 26 len 32 msg is "Password  
validation failure"As1 PPP: Phase is TERMINATINGAs1 LCP: O TERMREQ [Open] id 111 len  
4AAA/AUTHEN: free\_user (0x15B030) user='ddunlap' ruser='' = 'Async1' rem\_addr='async'  
authen\_type=PAP service=PPP priv=1User 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 20RADIUS:  
saved authorization data for user 15AD58 at 15ADF0AAA/AUTHEN (56862281): status =  
PASSAAA/AUTHOR/LCP As1: Authorize LCPAAA/AUTHOR/LCP: Async1: (959162008):  
user='cse'AAA/AUTHOR/LCP: Async1: (959162008): send AV service=pppAAA/AUTHOR/LCP: Async1:  
(959162008): send AV protocol=lcpAAA/AUTHOR/LCP: Async1: (959162008): Method=RADIUSRADIUS: no  
appropriate authorization type for user.AAAA/AUTHOR (959162008): Post authorization status =  
FAILAAA/AUTHOR/LCP As1: DeniedAAA/AUTHEN: free\_user (0x15AD58) user='cse' ruser=''  
port='Async1' rem\_addr='async' authen\_type=PAP service=PPP priv=1As1 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 324d02h: Attribute 6 6 000000024d02h: Attribute 7 6 000000014d02h: RADIUS: saved  
authorization data for user 15AD58 at 16C7F44d02h: AAA/AUTHEN (1953436918): status = PASS4d02h:  
AAA/AUTHOR/LCP As1: Authorize LCP4d02h: AAA/AUTHOR/LCP: Async1: (2587233868):  
user='ddunlap'4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): send AV service=ppp4d02h:  
AAA/AUTHOR/LCP: Async1: (2587233868): send AV protocol=lcp4d02h: AAA/AUTHOR/LCP: Async1:  
(2587233868): Method=RADIUS4d02h: AAA/AUTHOR (2587233868): Post authorization status =  
PASS\_REPL4d02h: AAA/AUTHOR/LCP As1: Processing AV service=ppp4d02h: As1 PAP: O AUTH-ACK id 14  
len 54d02h: As1 PPP: Phase is UP4d02h: 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=ppp4d02h: AAA/AUTHOR/FSM: Async1: (423372862): send AV protocol=ip4d02h:  
AAA/AUTHOR/FSM: Async1: (423372862): Method=RADIUS4d02h: AAA/AUTHOR (423372862): Post

```

authorization status = PASS_REPL4d02h: AAA/AUTHOR/FSM As1: We can start IPCP4d02h: As1 IPCP: O
CONFREQ [Closed] id 17 len 104d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)4d02h: As1 IPCP:
I CONFREQ [REQsent] id 1 len 344d02h: 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 0.0.0.04d02h:
AAA/AUTHOR/IPCP As1: Processing AV service=ppp4d02h: AAA/AUTHOR/IPCP As1: Authorization
succeeded4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 0.0.0.04d02h: As1 IPCP:
Using pool 'async'4d02h: As1 IPCP: Pool returned 15.15.15.154d02h: As1 IPCP: O CONFREQ [REQsent]
id 1 len 224d02h: 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 104d02h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)%LINEPROTO-5-
UPDOWN: Line protocol on Interface Async1, changed state to up4d02h: As1 IPCP: I CONFREQ
[ACKrcvd] id 2 len 164d02h: 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 15.15.15.154d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp4d02h: AAA/AUTHOR/IPCP As1:
Authorization succeeded4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want
15.15.15.154d02h: As1 IPCP: O CONFNAK [ACKrcvd] id 2 len 164d02h: 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 164d02h: 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 15.15.15.154d02h: AAA/AUTHOR/IPCP: Async1: (4204275250):
user='ddunlap'4d02h: AAA/AUTHOR/IPCP: Async1: (4204275250): send AV service=ppp4d02h:
AAA/AUTHOR/IPCP: Async1: (4204275250): send AV protocol=ip4d02h: AAA/AUTHOR/IPCP: Async1:
(4204275250): send AV addr*15.15.15.154d02h: AAA/AUTHOR/IPCP: Async1: (4204275250):
Method=RADIUS4d02h: AAA/AUTHOR (4204275250): Post authorization status = PASS_REPL4d02h:
AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using 15.15.15.154d02h: AAA/AUTHOR/IPCP As1: Processing
AV service=ppp4d02h: AAA/AUTHOR/IPCP As1: Processing AV addr*15.15.15.154d02h: AAA/AUTHOR/IPCP
As1: Authorization succeeded4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want
15.15.15.154d02h: As1 IPCP: O CONFACK [ACKrcvd] id 3 len 164d02h: As1 IPCP: Address 15.15.15.15
(0x03060F0F0F0F)4d02h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)4d02h: As1 IPCP:
State is Open4d02h: As1 IPCP: Install route to 15.15.15.15rtpkrb#

```

## RADIUS y CHAP

### Configuración - RADIUS y GRIETA

```

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 localaaa
authentication ppp default if-needed radius localaaa
authorization exec radius if-authenticatedaaa
authorization network radius if-authenticated!enable
secret 5 $1$pkX.$JdAysRE1SbdbDe7bj0wyt0enable password
ww!username john password 0 doeusername cse password 0
csecseip host rtpkrb 10.31.1.5ip name-server
171.68.118.103!interface Loopback0ip address 1.1.1.1
255.255.255.0!interface Ethernet0ip address 10.31.1.5
255.255.0.0no mop enabled!interface Serial0no ip
addressno ip mroute-cacheshutdown!interface Serial1no ip
addressshutdown!interface Async1ip unnumbered
Ethernet0encapsulation pppasync mode dedicatedpeer
default ip address pool asyncno cdp enableppp
authentication chap!ip local pool async 15.15.15.15ip
classlessip route 0.0.0.0 0.0.0.0 10.31.1.1!snmp-server
community public RWsnmp-server host 171.68.118.100 traps
publicradius-server host 171.68.118.101 auth-port 1645
acct-port 1646radius-server key cisco!line con 0line
!session-timeout 20 exec-timeout 20 0password

```



```
wwautoselect during-loginautoselect pppmodem
InOuttransport input allstopbits lspeed 38400flowcontrol
hardwareline 2modem InOutspeed 38400flowcontrol
hardwareline 3 16line aux 0line vty 0 4exec-timeout 0
0password ww!end
```

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

**Nota:** Para utilizar estos comandos, quite los comandos resaltados de la configuración antedicha y pegue estos comandos adentro, según lo dictado por su Cisco IOS Release.

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

```
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 csecseip  
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-caches  
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  
RWSnmp-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 session-timeout 20 exec-timeout 20  
0password wwautoselect during-loginautoselect pppmodem  
InOuttransport input allstopbits lspeed 38400flowcontrol  
hardwareline 2modem InOutspeed 38400flowcontrol  
hardwareline 3 16line aux 0line vty 0 4exec-timeout 0 0password ww!end
```

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

```
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 csecseip  
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-caches  
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  
RWSnmp-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 session-timeout 20 exec-timeout 20  
0password wwautoselect during-loginautoselect pppmodem  
InOuttransport input allstopbits lspeed 38400flowcontrol  
hardwareline 2modem InOutspeed 38400flowcontrol  
hardwareline 3 16line aux 0line vty 0 4exec-timeout 0 0password ww!end
```

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

**Nota:** En la salida de los debugs, el texto intrépido, puesto en letra itálica resalta los problemas en el debug. El sólo texto indica un debug correcta.

```
rtpkrb#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 onrtpkrb#4d02h: As1 LCP: I CONFREQ [Closed] id 0 len 204d02h: 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 up4d02h: As1 PPP: Treating connection  
as a dedicated line4d02h: As1 PPP: Phase is ESTABLISHING, Active Open4d02h: As1 LCP: O CONFREQ  
[Closed] id 87 len 254d02h: 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 254d02h: 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 204d02h: 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 204d02h: 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 Open4d02h: As1 PPP: Phase is AUTHENTICATING, by this end4d02h: 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=14d02h: AAA/AUTHEN/START (575703226): port='Async1' list=''  
action=LOGIN service=PPP4d02h: AAA/AUTHEN/START (575703226): using "default" list4d02h:  
AAA/AUTHEN (575703226): status = UNKNOWN4d02h: AAA/AUTHEN/START (575703226): Method=RADIUS4d02h:  
RADIUS: Initial Transmit id 8 171.68.118.101:1645, Access-Request, len 784d02h: Attribute 4 6  
0A1F01054d02h: Attribute 5 6 000000014d02h: Attribute 61 6 000000004d02h: Attribute 1 9  
636861704d02h: Attribute 3 19 0B895D574d02h: Attribute 6 6 000000024d02h: Attribute 7 6  
00000001Radius 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 progressAs1 CHAP: I RESPONSE id 12 len 28 from  
"chapadd"As1 AUTH: Duplicate authentication request id=12 already in progressRADIUS: Retransmit  
id 15As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"As1 AUTH: Duplicate authentication request  
id=12 already in progressAs1 CHAP: I RESPONSE id 12 len 28 from "chapadd"As1 AUTH: Duplicate  
authentication request id=12 already in progressAs1 CHAP: I RESPONSE id 12 len 28 from  
"chapadd"As1 AUTH: Duplicate authentication request id=12 already in progressRADIUS: Retransmit  
id 15As1 CHAP: I RESPONSE id 12 len 28 from "chapadd"As1 AUTH: Duplicate authentication request  
id=12 already in progressAs1 CHAP: I RESPONSE id 12 len 28 from "chapadd"As1 AUTH: Duplicate  
authentication request id=12 already in progressRADIUS: Retransmit id 15As1 CHAP: I RESPONSE id  
12 len 28 from "chapadd"As1 AUTH: Duplicate authentication request id=12 already in progressAs1  
LCP: I TERMREQ [Open] id 1 len 8 (0x000002CE)As1 LCP: O TERMACK [Open] id 1 len 4As1 PPP: Phase  
is TERMINATINGRADIUS: id 15, requester hung up.RADIUS: No response for id 15RADIUS: No response  
from serverAAA/AUTHEN (1866705040): status = ERRORAAA/AUTHEN/START (1866705040):  
Method=LOCALAAA/AUTHEN (1866705040): status = FAILAs1 CHAP: Unable to validate Response.  
Username chapadd: Authentication failureAs1 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=1Key in router does not match that of  
server:RADIUS: Received from id 21 171.68.118.101:1645, Access-Reject, len 20RADIUS: Reply for  
21 fails decryptNT client sends 'DOMAIN\user' and Radius server expects 'user':RADIUS: Received  
from id 16 171.68.118.101:1645, Access-Reject, len 20AAA/AUTHEN (2974782384): status = FAILAs1  
CHAP: Unable to validate Response. Username CISCO\chapadd: Authentication failureAs1 CHAP: O  
FAILURE id 13 len 26 msg is "Authentication failure"As1 PPP: Phase is TERMINATINGAs1 LCP: O  
TERMREQ [Open] id 131 len 4AAA/AUTHEN: free\_user (0x171700) user='CISCO\chapadd' ruser=''  
port='Async1' rem\_addr='async' authen\_type=CHAP service=PPP priv=1Radius 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 20AAA/AUTHEN  
(3898168391): status = FAILAs1 CHAP: Unable to validate Response. Username ddunlap:  
Authentication failureAs1 CHAP: O FAILURE id 14 len 26 msg is "Authentication failure"As1 PPP:  
Phase is TERMINATINGAs1 LCP: O TERMREQ [Open] id 134 len 4AAA/AUTHEN: free\_user (0x1716B8)  
user='ddunlap' ruser='' port='Async1' rem\_addr='async' authen\_type=CHAP service=PPP  
priv=1User 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 20AAA/AUTHEN (2006894701): status = PASSAAA/AUTHOR/LCP  
As1: Authorize LCPAAA/AUTHOR/LCP: Async1: (2370106832): user='noauth'AAA/AUTHOR/LCP: Async1:  
(2370106832): send AV service=pppAAA/AUTHOR/LCP: Async1: (2370106832): send AV  
protocol=lcpAAA/AUTHOR/LCP: Async1: (2370106832): Method=RADIUSRADIUS: no appropriate  
authorization type for user.AAA/AUTHOR (2370106832): Post authorization status =  
FAILAAA/AUTHOR/LCP As1: Denied4d02h: RADIUS: Received from id 8 171.68.118.101:1645, Access-



```
Accept, len 324d02h: Attribute 6 6 000000024d02h: Attribute 7 6 000000014d02h: AAA/AUTHEN
(575703226): status = PASS4d02h: AAA/AUTHOR/LCP As1: Authorize LCP4d02h: AAA/AUTHOR/LCP: Async1:
(4143416222): user='chapadd'4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): send AV
service=ppp4d02h: AAA/AUTHOR/LCP: Async1: (4143416222): send AV protocol=lcp4d02h:
AAA/AUTHOR/LCP: Async1: (4143416222): Method=RADIUS4d02h: AAA/AUTHOR (4143416222): Post
authorization status = PASS_REPL4d02h: AAA/AUTHOR/LCP As1: Processing AV service=ppp4d02h: As1
CHAP: O SUCCESS id 11 len 44d02h: As1 PPP: Phase is UP4d02h: 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=ppp4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): send AV
protocol=ip4d02h: AAA/AUTHOR/FSM: Async1: (1916451991): Method=RADIUS4d02h: AAA/AUTHOR
(1916451991): Post authorization status = PASS_REPL4d02h: AAA/AUTHOR/FSM As1: We can start
IPCP4d02h: As1 IPCP: O CONFREQ [Closed] id 19 len 104d02h: As1 IPCP: Address 10.31.1.5
(0x03060A1F0105)4d02h: As1 IPCP: I CONFREQ [REQsent] id 1 len 344d02h: 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 0.0.0.04d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp4d02h: AAA/AUTHOR/IPCP As1:
Authorization succeeded4d02h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want
0.0.0.04d02h: As1 IPCP: Using pool 'async'4d02h: As1 IPCP: Pool returned 15.15.15.154d02h: As1
IPCP: O CONFREQ [REQsent] id 1 len 224d02h: 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 104d02h: As1 IPCP: Address
10.31.1.5 (0x03060A1F0105)4d02h: As1 IPCP: I CONFREQ [ACKrcvd] id 2 len 164d02h: 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 15.15.15.154d02h: AAA/AUTHOR/IPCP As1:
Processing AV service=ppp4d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded4d02h:
AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 15.15.15.154d02h: As1 IPCP: O CONFNAK
[ACKrcvd] id 2 len 164d02h: 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 164d02h:
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
15.15.15.154d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): user='chapadd'4d02h: AAA/AUTHOR/IPCP:
Async1: (1096193147): send AV service=ppp4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): send AV
protocol=ip4d02h: AAA/AUTHOR/IPCP: Async1: (1096193147): send AV addr*15.15.15.154d02h:
AAA/AUTHOR/IPCP: Async1: (1096193147): Method=RADIUS4d02h: AAA/AUTHOR (1096193147): Post
authorization status = PASS_REPL4d02h: AAA/AUTHOR/IPCP As1: Reject 15.15.15.15, using
15.15.15.154d02h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp4d02h: AAA/AUTHOR/IPCP As1:
Processing AV addr*15.15.15.154d02h: AAA/AUTHOR/IPCP As1: Authorization succeeded4d02h:
AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want 15.15.15.154d02h: As1 IPCP: O
CONFACK [ACKrcvd] id 3 len 164d02h: 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 up4d02h: As1 IPCP: Install route to
15.15.15.15rtpkrb#
```

## [Comandos de Debug](#)

Utilizaron a los **comandos debug** siguientes de presentar el ejemplo de salida del debug en este documento.

### **Nota:**

- **haga el debug de la autenticación aaa** - Mostrar información en la autenticación AAA.
- **debug aaa authorization**: muestra información sobre autorización AAA.
- **radio del debug** - Información de debugging detallada de la visualización asociada al Remote Authentication Dial-In User Server (RADIUS).
- **negociación ppp del debug** - Visualiza los paquetes PPP transmitidos durante el inicio de PPP, donde se negocian las opciones PPP.

## [Información Relacionada](#)

- [Página de soporte de RADIUS](#)

- [Soporte Técnico - Cisco Systems](#)