

Contenido

[Introducción](#)

[prerrequisitos](#)

[Requisitos](#)

[Componentes Utilizados](#)

[Convenciones](#)

[Configuración común de PC](#)

[Windows 95](#)

[Windows NT](#)

[Windows 98](#)

[Windows 2000](#)

[Ejemplos de configuraciones y depuración](#)

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

[Depuraciones de ejemplo: TACACS+ y PAP](#)

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

[Depuración de ejemplo - TACACS+ y CHAP](#)

[comandos debug](#)

[Información Relacionada](#)

[Introducción](#)

Nota: La información en este documento se basa en las versiones 11.2 del Cisco IOS ® Software y posterior.

Este documento examina los problemas de debugging comunes para el TACACS+ cuando el protocolo password authentication (PAP) o se utiliza 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.

[prerrequisitos](#)

[Requisitos](#)

No hay requisitos específicos para este documento.

[Componentes Utilizados](#)

Este documento no tiene restricciones específicas en cuanto a versiones de software y de hardware.

La información que contiene este documento se creó a partir de los dispositivos en 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 cualquier comando.

[Convenciones](#)

Consulte [Convenciones de Consejos Técnicos Cisco](#) para obtener más información sobre las convenciones del documento.

[Configuración común de PC](#)

[Windows 95](#)

Complete estos pasos:

1. En la ventana de interconexión de redes de marcación manual, elija 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, el PC valida solamente la autenticación CHAP. Si este cuadro no se marca, el PC valida el PAP o la autenticación CHAP.

[Windows NT](#)

Complete estos pasos:

1. En la ventana del dial-up networking, elija el nombre de la conexión, y después elija 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, 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](#)

Complete estos pasos:

1. En la ventana del dial-up networking, elija el nombre de la conexión, y después elija las **propiedades**.
2. En los tipos de servidor tabule, marque las configuraciones en el área avanzada de las opciones: Si el **cuadro de contraseña encriptada del requerir** no se marca, el PC valida el PAP o la autenticación CHAP. Si se marca el **cuadro de contraseña encriptada del requerir**, el PC valida solamente la autenticación CHAP.

[Windows 2000](#)

Complete estos pasos:

1. En la red y las conexiones por línea telefónica, elija el nombre de la conexión, y después elija las propiedades.
2. En la ficha de seguridad, en el **avanzado > las configuraciones > permiten éstos protocolos 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

Configuración - TACACS+ y PAP

```

Current configuration: !version 11.2
service timestamps
debug uptime
service timestamps log uptime
no service
password-encryption
service udp-small-servers
service tcp-small-servers
!hostname rtpkrb!aaa new-model
!!-- The following four lines of the !--- configuration are specific to !--- Cisco IOS 11.2 and later, until 11.3.3.T. !--- See below this configuration !--- for commands for other Cisco IOS releases.
!aaa
authentication login default tacacs+ localaaa
authentication ppp default if-needed tacacs+ localaaa
authorization exec tacacs+ if-authenticatedaaa
authorization network tacacs+ if-authenticatedenable
secret 5 $1$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-cache
shutdown!interface Serial1no ip addressshutdown!interface Async1ip unnumbered Ethernet0encapsulation pppasync mode dedicatedpeer default ip address pool asyncno cdp enableppp authentication pap!ip local pool async 15.15.15.15ip classlessip route 0.0.0.0 0.0.0.0 10.31.1.1!tacacs-server host 171.68.118.101tacacs-server key ciscosnmp-server community public RWSnmp-server host 171.68.118.100 traps public!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 4password ww!end

```

Comandos para otras versiones del software del IOS de Cisco

Nota: Para utilizar estos comandos, quite los comandos en intrépido de la configuración y la goma en 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
service timestamps log uptime
no service
password-encryption
service udp-small-servers
service tcp-small-servers
!hostname rtpkrb!aaa new-model
!!-- The following four lines of the !--- configuration are specific to !--- Cisco IOS 11.2 and later, until 11.3.3.T. !--- See below this configuration !--- for commands

```

```

for other Cisco IOS releases.!aaa authentication login default tacacs+ localaaa authentication
ppp default if-needed tacacs+ localaaa authorization exec tacacs+ if-authenticatedaaa
authorization network tacacs+ if-authenticatedenable secret 5
$1$pkX.$JdAysRE1SbdbDe7bj0wyt0enable 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 Async1ip unnumbered
Ethernet0encapsulation pppasync mode dedicatedpeer default ip address pool asyncno cdp enableppp
authentication pap!ip local pool async 15.15.15.15ip classlessip route 0.0.0.0 0.0.0.0
10.31.1.1!tacacs-server host 171.68.118.101tacacs-server key ciscosnmp-server community public
Rwsnmp-server host 171.68.118.100 traps public!line con 0line lsession-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 4password ww!end

```

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

```

Current configuration:
!version 11.2service timestamps debug uptime
service timestamps log uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!hostname rtpkrb
!aaa new-model
!--- The following four lines of the !--- configuration are specific to !---
- Cisco IOS 11.2 and later, until 11.3.3.T. !--- See below this configuration !--- for commands
for other Cisco IOS releases.
!aaa authentication login default tacacs+ localaaa authentication
ppp default if-needed tacacs+ localaaa authorization exec tacacs+ if-authenticatedaaa
authorization network tacacs+ if-authenticatedenable secret 5
$1$pkX.$JdAysRE1SbdbDe7bj0wyt0enable 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 Async1ip unnumbered
Ethernet0encapsulation pppasync mode dedicatedpeer default ip address pool asyncno cdp enableppp
authentication pap!ip local pool async 15.15.15.15ip classlessip route 0.0.0.0 0.0.0.0
10.31.1.1!tacacs-server host 171.68.118.101tacacs-server key ciscosnmp-server community public
Rwsnmp-server host 171.68.118.100 traps public!line con 0line lsession-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 4password ww!end

```

[Depuraciones de ejemplo: TACACS+ 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#show debug
General OS:TACACS access control debugging is on
AAA Authentication debugging is on
AAA Authorization debugging is on
PPP:PPP authentication debugging is on
PPP protocol negotiation debugging is on
rtpkrb#3d22h: %LINK-3-UPDOWN: Interface Async1, changed state to up
3d22h: As1 PPP: Treating connection as a dedicated line
3d22h: As1 PPP: Phase is ESTABLISHING, Active Open
3d22h: As1 LCP: O CONFREQ [Closed] id 14 len 243
3d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
3d22h: As1 LCP: AuthProto PAP (0x0304C023)
3d22h: As1 LCP: MagicNumber 0xF45FB7A7 (0x0506F45FB7A7)
3d22h: As1 LCP: PFC (0x0702)
3d22h: 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 27 len 12
As1 LCP: AuthProto 0xC123 (0x0308C12301000001)
As1 PPP: Closing connection because remote won't authenticate
3d22h: As1 LCP: Interface transitioned, discarding packet
3d22h: As1 LCP: I CONFACK [REQsent] id 14 len 243
3d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
3d22h: As1 LCP: AuthProto PAP (0x0304C023)
3d22h: As1 LCP: MagicNumber 0xF45FB7A7 (0x0506F45FB7A7)
3d22h: As1 LCP: PFC (0x0702)
3d22h: As1 LCP: ACFC (0x0802)
3d22h: As1 LCP: TIMEOUT: Time 0x14417CC4 State ACKRcvd
3d22h: As1 LCP: O CONFREQ [ACKrcvd] id 15 len 243
3d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
3d22h: As1 LCP: AuthProto PAP (0x0304C023)
3d22h: As1 LCP: MagicNumber 0xF45FB7A7 (0x0506F45FB7A7)
3d22h: As1 LCP: PFC (0x0702)
3d22h: As1 LCP: ACFC (0x0802)
3d22h: As1 LCP: I CONFACK [REQsent] id 15 len 243
3d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
3d22h: As1 LCP: AuthProto PAP (0x0304C023)
3d22h: As1 LCP: MagicNumber 0xF45FB7A7 (0x0506F45FB7A7)
3d22h: As1 LCP: PFC (0x0702)
3d22h: As1 LCP: ACFC (0x0802)
3d22h: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 203
3d22h: As1 LCP: ACCM 0x00000000 (0x020600000000)
3d22h: As1 LCP:

```

MagicNumber 0x000030A3 (0x0506000030A3)3d22h: As1 LCP: PFC (0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: O CONFACK [ACKrcvd] id 0 len 203d22h: As1 LCP: ACCM 0x00000000 (0x020600000000)3d22h: As1 LCP: MagicNumber 0x000030A3 (0x0506000030A3)3d22h: As1 LCP: PFC (0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: State is Open3d22h: As1 PPP: Phase is AUTHENTICATING, by this end3d22h: As1 PAP: I AUTH-REQ id 4 len 20 from "papuser"3d22h: As1 PAP: Authenticating peer papuser3d22h: AAA/AUTHEN: create_user (0x16DAC0) user='papuser' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=13d22h: AAA/AUTHEN/START (1190231344): port='Async1' list='' action=LOGIN service=PPP3d22h: AAA/AUTHEN/START (1190231344): using "default" list3d22h: AAA/AUTHEN (1190231344): status = UNKNOWN3d22h: AAA/AUTHEN/START (1190231344): Method=TACACS+3d22h: TAC+: send AUTHEN/START packet ver=193 id=11902313443d22h: TAC+: Using default tacacs server list.3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=5!--- *The TAC+ server is down, producing an error. !--- Since the user is not in the local database, !--- the failover to local fails.*TAC+: TCP/IP open to 171.68.118.101/49 failed -- Connection refused by remote hostAAA/AUTHEN (866823886): status = ERRORAAA/AUTHEN/START (866823886): Method=LOCALAAA/AUTHEN (866823886): status = FAIL3d22h: TAC+: Opened TCP/IP handle 0x16C1F8 to 171.68.118.101/493d22h: TAC+: 171.68.118.101 (1190231344) AUTHEN/START/LOGIN/PAP queued3d22h: TAC+: (1190231344) AUTHEN/START/LOGIN/PAP processed!--- *The key in the router does not match that of the server.*TAC+: received bad AUTHEN packet: length = 68, expected 67857TAC+: Invalid AUTHEN/START packet (check keys)AAA/AUTHEN (1771887965): status = ERROR 3d22h: TAC+: ver=192 id=1190231344 received AUTHEN status = GETPASS3d22h: TAC+: Closing TCP/IP 0x16C1F8 connection to 171.68.118.101/493d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16EF4C to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: AAA/AUTHEN: create_user (0x16C5EC) user='papuser' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=13d22h: TAC+: rev0 inbound pap login for id=1190231344 using id=31128966693d22h: TAC+: 171.68.118.101 (3112896669) AUTHEN/START/LOGIN/PAP queued3d22h: TAC+: (3112896669) AUTHEN/START/LOGIN/PAP processed3d22h: TAC+: ver=192 id=3112896669 received AUTHEN status = GETPASS3d22h: TAC+: send AUTHEN/CONT packet3d22h: TAC+: 171.68.118.101 (3112896669) AUTHEN/CONT queued3d22h: TAC+: (3112896669) AUTHEN/CONT processed!--- *The NT client sends the "DOMAIN\user" !--- and the TAC+ server expects "user".*TAC+: ver=192 id=260507389 received AUTHEN status = FAILTAC+: rev0 inbound pap completed for 1139034411 status=FAILAAA/AUTHEN: free_user (0x16CDD4) user='CISCO\papuser' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1!--- *The TAC+ server refuses the user !--- because the user is set up for PAP. !--- The user enters a bad password, !--- or both the username and password are bad.*TAC+: ver=192 id=691012958 received AUTHEN status = FAILTAC+: rev0 inbound pap completed for 3917384959 status=FAILAAA/AUTHEN: free_user (0x15AD58) user='idochap' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=13d22h: TAC+: ver=192 id=3112896669 received AUTHEN status = PASS3d22h: TAC+: rev0 inbound pap completed for 1190231344 status=PASS3d22h: AAA/AUTHEN: free_user (0x16C5EC) user='papuser' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=13d22h: TAC+: Closing TCP/IP 0x16EF4C connection to 171.68.118.101/493d22h: AAA/AUTHEN (1190231344): status = PASS3d22h: AAA/AUTHOR/LCP As1: Authorize LCP3d22h: AAA/AUTHOR/LCP: Async1: (1061976769): user='papuser'3d22h: AAA/AUTHOR/LCP: Async1: (1061976769): send AV service=ppp3d22h: AAA/AUTHOR/LCP: Async1: (1061976769): send AV protocol=lcp3d22h: AAA/AUTHOR/LCP: Async1: (1061976769): Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (1061976769): user=papuser3d22h: AAA/AUTHOR/TAC+: (1061976769): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (1061976769): send AV protocol=lcp3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16C9E0 to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (1061976769) AUTHOR/START queued3d22h: TAC+: (1061976769) AUTHOR/START processed!--- *The user passes authentication !--- (the username/password is good) !--- but fails authorization !--- (the profile is not set up to authorize PPP).*TAC+: (1793875816): received author response status = FAILTAC+: Closing TCP/IP 0x17054C connection to 171.68.118.101/49AAA/AUTHOR (1793875816): Post authorization status = FAILAAA/AUTHOR/LCP As1: Denied3d22h: TAC+: (1061976769): received author response status = PASS_ADD3d22h: TAC+: Closing TCP/IP 0x16C9E0 connection to 171.68.118.101/493d22h: AAA/AUTHOR (1061976769): Post authorization status = PASS_ADD3d22h: As1 PAP: O AUTH-ACK id 4 len 53d22h: As1 PPP: Phase is UP3d22h: AAA/AUTHOR/FSM As1: (0): Can we start IPCP?3d22h: AAA/AUTHOR/FSM: Async1: (3602788894): user='papuser'3d22h: AAA/AUTHOR/FSM: Async1: (3602788894): send AV service=ppp3d22h: AAA/AUTHOR/FSM: Async1: (3602788894): send AV protocol=ip3d22h: AAA/AUTHOR/FSM: Async1: (3602788894): Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (3602788894): user=papuser3d22h: AAA/AUTHOR/TAC+: (3602788894): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (3602788894): send AV protocol=ip3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up3d22h: TAC+: Opened TCP/IP handle 0x17054C to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (3602788894) AUTHOR/START queued3d22h: As1 IPCP: I CONFREQ [Closed] id 1 len 343d22h: As1 IPCP:

Address 0.0.0.0 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: As1
 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h: As1 IPCP: SecondaryDNS 0.0.0.0
 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)3d22h: TAC+: (3602788894)
 AUTHOR/START processed3d22h: TAC+: (3602788894): received author response status =
 PASS_ADD3d22h: TAC+: Closing TCP/IP 0x17054C connection to 171.68.118.101/493d22h: AAA/AUTHOR
 (3602788894): Post authorization status = PASS_ADD3d22h: AAA/AUTHOR/FSM As1: We can start
 IPCP3d22h: As1 IPCP: O CONFREQ [Closed] id 10 len 103d22h: As1 IPCP: Address 10.31.1.5
 (0x03060A1F0105)3d22h: As1 IPCP: I CONFACK [REQsent] id 10 len 103d22h: As1 IPCP: Address
 10.31.1.5 (0x03060A1F0105)3d22h: As1 IPCP: I CONFREQ [ACKrcvd] id 1 len 343d22h: As1 IPCP:
 Address 0.0.0.0 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: As1
 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h: As1 IPCP: SecondaryDNS 0.0.0.0
 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)3d22h: AAA/AUTHOR/IPCP
 As1: Start. Her address 0.0.0.0, we want 0.0.0.03d22h: AAA/AUTHOR/IPCP As1: Processing AV
 service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV protocol=ip3d22h: AAA/AUTHOR/IPCP As1:
 Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want
 0.0.0.03d22h: As1 IPCP: Using pool 'async'3d22h: As1 IPCP: Pool returned 15.15.15.153d22h: As1
 IPCP: O CONFREQ [ACKrcvd] id 1 len 223d22h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h:
 As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0
 (0x840600000000)3d22h: As1 IPCP: I CONFREQ [ACKrcvd] id 2 len 163d22h: As1 IPCP: Address 0.0.0.0
 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: AAA/AUTHOR/IPCP As1:
 Start. Her address 0.0.0.0, we want 15.15.15.153d22h: AAA/AUTHOR/IPCP As1: Processing AV
 service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV protocol=ip3d22h: AAA/AUTHOR/IPCP As1:
 Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want
 15.15.15.153d22h: As1 IPCP: O CONFNAK [ACKrcvd] id 2 len 163d22h: As1 IPCP: Address 15.15.15.15
 (0x03060F0F0F0F)3d22h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: As1 IPCP: I
 CONFREQ [ACKrcvd] id 3 len 163d22h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)3d22h: As1
 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: AAA/AUTHOR/IPCP As1: Start. Her address
 15.15.15.15, we want 15.15.15.153d22h: AAA/AUTHOR/IPCP: Async1: (3654974050):
 user='papuser'3d22h: AAA/AUTHOR/IPCP: Async1: (3654974050): send AV service=ppp3d22h:
 AAA/AUTHOR/IPCP: Async1: (3654974050): send AV protocol=ip3d22h: AAA/AUTHOR/IPCP: Async1:
 (3654974050): send AV addr*15.15.15.153d22h: AAA/AUTHOR/IPCP: Async1: (3654974050):
 Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (3654974050): user=papuser3d22h: AAA/AUTHOR/TAC+:
 (3654974050): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (3654974050): send AV protocol=ip3d22h:
 AAA/AUTHOR/TAC+: (3654974050): send AV addr*15.15.15.153d22h: TAC+: Opening TCP/IP to
 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16EF4C to 171.68.118.101/493d22h:
 TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (3654974050) AUTHOR/START
 queued3d22h: TAC+: (3654974050) AUTHOR/START processed3d22h: TAC+: (3654974050): received author
 response status = PASS_ADD3d22h: TAC+: Closing TCP/IP 0x16EF4C connection to
 171.68.118.101/493d22h: AAA/AUTHOR (3654974050): Post authorization status = PASS_ADD3d22h:
 AAA/AUTHOR/IPCP As1: Processing AV service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV
 protocol=ip3d22h: AAA/AUTHOR/IPCP As1: Processing AV addr*15.15.15.153d22h: AAA/AUTHOR/IPCP As1:
 Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want
 15.15.15.153d22h: As1 IPCP: O CONFACK [ACKrcvd] id 3 len 163d22h: As1 IPCP: Address 15.15.15.15
 (0x03060F0F0F0F)3d22h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: As1 IPCP:
 State is Open3d22h: As1 IPCP: Install route to 15.15.15.15rtpkrb#

Configuración - TACACS+ y GRIETA

```
Current configuration:!  
version 11.2  
service timestamps  
debug uptime  
service timestamps log uptime  
no service  
password-encryption service udp-small-servers  
service tcp-  
small-servers!  
hostname rtpkrb!  
aaa new-model!  
!--- The following four lines of the configuration !--- are  
specific to Cisco IOS 11.2 and later, until 11.3.3.T. !-  
-- See below this configuration !--- for commands for  
other Cisco IOS releases.  
aaa authentication login  
default tacacs+ localaaa authentication ppp default if-  
needed tacacs+ localaaa authorization exec tacacs+ if-  
authenticatedaaa authorization network tacacs+ if-  
authenticatedenable 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!tacacs-
server host 171.68.118.101tacacs-server key ciscosnmp-
server community public Rwsnmp-server host
171.68.118.100 traps public!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 4password ww!end

```

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

Nota: Nota: Para utilizar estos comandos, quite los comandos en intrépido de la configuración 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 11.2service timestamps debug uptimeservice timestamps log
uptimeno service password-encryption!service udp-small-servers!service tcp-small-servers!hostname
rtpkrb!aaa new-model!!--- The following four lines of the configuration !--- are specific to
Cisco IOS 11.2 and later, until 11.3.3.T. !--- See below this configuration !--- for commands
for other Cisco IOS releases.!aaa authentication login default tacacs+ localaaa authentication
ppp default if-needed tacacs+ localaaa authorization exec tacacs+ if-authenticatedaaa
authorization network tacacs+ if-authenticatedenable secret 5
$1$pkX.$JdAysRElSbdbDe7bj0wyt0enable 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!tacacs-server host
171.68.118.101tacacs-server key ciscosnmp-server community public Rwsnmp-server host
171.68.118.100 traps public!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 4password ww!end

```

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

```

Current configuration:!version 11.2service timestamps debug uptimeservice timestamps log
uptimeno service password-encryption!service udp-small-servers!service tcp-small-servers!hostname
rtpkrb!aaa new-model!!--- The following four lines of the configuration !--- are specific to
Cisco IOS 11.2 and later, until 11.3.3.T. !--- See below this configuration !--- for commands
for other Cisco IOS releases.!aaa authentication login default tacacs+ localaaa authentication
ppp default if-needed tacacs+ localaaa authorization exec tacacs+ if-authenticatedaaa
authorization network tacacs+ if-authenticatedenable secret 5
$1$pkX.$JdAysRElSbdbDe7bj0wyt0enable 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!tacacs-server host
171.68.118.101tacacs-server key ciscosnmp-server community public Rwsnmp-server host
171.68.118.100 traps public!line con 0line 1session-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 4password ww!end
```

Depuración de ejemplo - TACACS+ y CHAP

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

```
General OS:TACACS access control debugging is onAAA Authentication debugging is onAAA
Authorization debugging is onPPP:PPP authentication debugging is onPPP protocol negotiation
debugging is onrtpkrb#3d22h: As1 LCP: I CONFREQ [Closed] id 0 len 203d22h: As1 LCP: ACCM
0x00000000 (0x020600000000)3d22h: As1 LCP: MagicNumber 0x000042C5 (0x0506000042C5)3d22h: As1
LCP: PFC (0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: Lower layer not up, discarding
packet3d22h: %LINK-3-UPDOWN: Interface Async1, changed state to up3d22h: As1 PPP: Treating
connection as a dedicated line3d22h: As1 PPP: Phase is ESTABLISHING, Active Open3d22h: As1 LCP:
O CONFREQ [Closed] id 12 len 253d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)3d22h: As1 LCP:
AuthProto CHAP (0x0305C22305)3d22h: As1 LCP: MagicNumber 0xF45D776F (0x0506F45D776F)3d22h: As1
LCP: PFC (0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: I CONFACK [REQsent] id 12 len
253d22h: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)3d22h: As1 LCP: AuthProto CHAP
(0x0305C22305)3d22h: As1 LCP: MagicNumber 0xF45D776F (0x0506F45D776F)3d22h: As1 LCP: PFC
(0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 203d22h: As1
LCP: ACCM 0x00000000 (0x020600000000)3d22h: As1 LCP: MagicNumber 0x000042C5
(0x0506000042C5)3d22h: As1 LCP: PFC (0x0702)3d22h: As1 LCP: ACFC (0x0802)3d22h: As1 LCP: O
CONFACK [ACKrcvd] id 0 len 203d22h: As1 LCP: ACCM 0x00000000 (0x020600000000)3d22h: As1 LCP:
MagicNumber 0x000042C5 (0x0506000042C5)3d22h: As1 LCP: PFC (0x0702)3d22h: As1 LCP: ACFC
(0x0802)3d22h: As1 LCP: State is Open3d22h: As1 PPP: Phase is AUTHENTICATING, by this end3d22h:
As1 CHAP: O CHALLENGE id 3 len 27 from "rtpkrb"3d22h: As1 CHAP: I RESPONSE id 3 len 29 from
"chapuser"3d22h: AAA/AUTHEN: create_user (0x15B394) user='chapuser' ruser='' port='Async1'
rem_addr='async' authen_type=CHAP service=PPP priv=13d22h: AAA/AUTHEN/START (2183639772):
port='Async1' list='' action=LOGIN service=PPP3d22h: AAA/AUTHEN/START (2183639772): using
"default" list3d22h: AAA/AUTHEN (2183639772): status = UNKNOWN3d22h: AAA/AUTHEN/START
(2183639772): Method=TACACS+3d22h: TAC+: send AUTHEN/START packet ver=193 id=21836397723d22h:
TAC+: Using default tacacs server list.3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49
timeout=5!--- The TAC+ server is down, producing an error. !--- Since the user is not in the
local database, !--- the failover to local fails.TAC+: TCP/IP open to 171.68.118.101/49 failed -
- Connection refused by remote hostAAA/AUTHEN (2546660185): status = ERRORAAA/AUTHEN/START
(2546660185): Method=LOCALAAA/AUTHEN (2546660185): status = FAILAs1 CHAP: Unable to validate
Response. Username chapuser: Authentication failure3d22h: TAC+: Opened TCP/IP handle 0x17054C to
171.68.118.101/493d22h: TAC+: 171.68.118.101 (2183639772) AUTHEN/START/LOGIN/CHAP queued3d22h:
TAC+: (2183639772) AUTHEN/START/LOGIN/CHAP processed!--- The key in the router does not match
that of the server.TAC+: received bad AUTHEN packet: length = 68, expected 67857TAC+: Invalid
AUTHEN/START packet (check keys)AAA/AUTHEN (1771887965): status = ERROR3d22h: TAC+: ver=192
id=2183639772 received AUTHEN status = GETPASS3d22h: TAC+: Closing TCP/IP 0x17054C connection to
171.68.118.101/493d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened
TCP/IP handle 0x16EF4C to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h:
AAA/AUTHEN: create_user (0x170940) user='chapuser' ruser='' port='Async1' rem_addr='async'
authen_type=CHAP service=PPP priv=13d22h: TAC+: rev0 inbound chap for id=2183639772 using
id=1667030293d22h: TAC+: 171.68.118.101 (166703029) AUTHEN/START/SENDPASS/CHAP queued3d22h:
TAC+: (166703029) AUTHEN/START/SENDPASS/CHAP processed!--- The NT client sends the "DOMAIN\user"
!--- and the TAC+ server expects "user".TAC+: ver=192 id=3373385106 received AUTHEN status =
FAILTAC+: rev0 inbound chap FAIL for id=2082151566AAA/AUTHEN: free_user (0x170940)
user='CISCO\chapuser' ruser='' port='Async1' rem_addr='async' authen_type=CHAP service=PPP
priv=1!--- The TAC+ server refuses the user !--- because the user is set up for PAP. !--- The
user enters a bad password, !--- or both the username and password are bad.TAC+: ver=192
id=1989464562 received AUTHEN status = PASSTAC+: rev0 inbound chap SENDPASS status=PASS for
id=3657266965TAC+: rev0 inbound chap MD5 compare FAILEDAAA/AUTHEN: free_user (0x170940)
user='chapuser' ruser='' port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1TAC+:
Closing TCP/IP 0x16EF4C connection to 171.68.118.101/49AAA/AUTHEN (2082151566): status = FAILAs1
CHAP: Unable to validate Response. Username papuser: Authentication failure3d22h: TAC+: ver=192
id=166703029 received AUTHEN status = PASS3d22h: TAC+: rev0 inbound chap SENDPASS status=PASS
for id=21836397723d22h: TAC+: rev0 inbound chap MD5 compare OK3d22h: AAA/AUTHEN: free_user
(0x170940) user='chapuser' ruser='' port='Async1' rem_addr='async' authen_type=CHAP service=PPP
```


priv=13d22h: TAC+: Closing TCP/IP 0x16EF4C connection to 171.68.118.101/493d22h: AAA/AUTHEN (2183639772): status = PASS3d22h: AAA/AUTHOR/LCP As1: Authorize LCP3d22h: AAA/AUTHOR/LCP: Async1: (683360936): user='chapuser'3d22h: AAA/AUTHOR/LCP: Async1: (683360936): send AV service=ppp3d22h: AAA/AUTHOR/LCP: Async1: (683360936): send AV protocol=lcp3d22h: AAA/AUTHOR/LCP: Async1: (683360936): Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (683360936): user=chapuser3d22h: AAA/AUTHOR/TAC+: (683360936): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (683360936): send AV protocol=lcp3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16C1F8 to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (683360936) AUTHOR/START queued3d22h: TAC+: (683360936) AUTHOR/START processed!--- The user passes authentication !--- (the username/password is good) !--- but fails authorization !--- (the profile is not set up to authorize PPP).TAC+: (3803447096): received author response status = FAILTAC+: Closing TCP/IP 0x16C2A4 connection to 171.68.118.101/49AAA/AUTHOR (3803447096): Post authorization status = FAILAAA/AUTHOR/LCP As1: DeniedAAA/AUTHEN: free_user (0x15B2E8) user='noauth' ruser='' port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1As1 CHAP: O FAILURE id 9 len 24 msg is "Authorization failed"3d22h: TAC+: (683360936): received author response status = PASS_ADD3d22h: TAC+: Closing TCP/IP 0x16C1F8 connection to 171.68.118.101/493d22h: AAA/AUTHOR (683360936): Post authorization status = PASS_ADD3d22h: As1 CHAP: O SUCCESS id 3 len 43d22h: As1 PPP: Phase is UP3d22h: AAA/AUTHOR/FSM As1: (0): Can we start IPCP?3d22h: AAA/AUTHOR/FSM: Async1: (977509495): user='chapuser'3d22h: AAA/AUTHOR/FSM: Async1: (977509495): send AV service=ppp3d22h: AAA/AUTHOR/FSM: Async1: (977509495): send AV protocol=ip3d22h: AAA/AUTHOR/FSM: Async1: (977509495): Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (977509495): user=chapuser3d22h: AAA/AUTHOR/TAC+: (977509495): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (977509495): send AV protocol=ip3d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16EF4C to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (977509495) AUTHOR/START queued3d22h: As1 IPCP: I CONFREQ [Closed] id 1 len 343d22h: As1 IPCP: Address 0.0.0.0 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)3d22h: TAC+: (977509495) AUTHOR/START processed3d22h: TAC+: (977509495): received author response status = PASS_ADD3d22h: TAC+: Closing TCP/IP 0x16EF4C connection to 171.68.118.101/493d22h: AAA/AUTHOR (977509495): Post authorization status = PASS_ADD3d22h: AAA/AUTHOR/FSM As1: We can start IPCP3d22h: As1 IPCP: O CONFREQ [Closed] id 8 len 103d22h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)3d22h: As1 IPCP: I CONFACK [REQsent] id 8 len 103d22h: As1 IPCP: Address 10.31.1.5 (0x03060A1F0105)3d22h: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up3d22h: As1 IPCP: I CONFREQ [ACKrcvd] id 1 len 343d22h: As1 IPCP: Address 0.0.0.0 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)3d22h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 0.0.0.03d22h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV protocol=ip3d22h: AAA/AUTHOR/IPCP As1: Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 0.0.0.03d22h: As1 IPCP: Using pool 'async'3d22h: As1 IPCP: Pool returned 15.15.15.153d22h: As1 IPCP: O CONFREQ [ACKrcvd] id 1 len 223d22h: As1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)3d22h: As1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)3d22h: As1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)3d22h: As1 IPCP: I CONFREQ [ACKrcvd] id 2 len 163d22h: As1 IPCP: Address 0.0.0.0 (0x030600000000)3d22h: As1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)3d22h: AAA/AUTHOR/IPCP As1: Start. Her address 0.0.0.0, we want 15.15.15.153d22h: AAA/AUTHOR/IPCP As1: Processing AV service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV protocol=ip3d22h: AAA/AUTHOR/IPCP As1: Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 0.0.0.0, we want 15.15.15.153d22h: As1 IPCP: O CONFNAK [ACKrcvd] id 2 len 163d22h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)3d22h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: As1 IPCP: I CONFREQ [ACKrcvd] id 3 len 163d22h: As1 IPCP: Address 15.15.15.15 (0x03060F0F0F0F)3d22h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: AAA/AUTHOR/IPCP As1: Start. Her address 15.15.15.15, we want 15.15.15.153d22h: AAA/AUTHOR/IPCP: Async1: (3918374858): user='chapuser'3d22h: AAA/AUTHOR/IPCP: Async1: (3918374858): send AV service=ppp3d22h: AAA/AUTHOR/IPCP: Async1: (3918374858): send AV protocol=ip3d22h: AAA/AUTHOR/IPCP: Async1: (3918374858): send AV addr*15.15.15.153d22h: AAA/AUTHOR/IPCP: Async1: (3918374858): Method=TACACS+3d22h: AAA/AUTHOR/TAC+: (3918374858): user=chapuser3d22h: AAA/AUTHOR/TAC+: (3918374858): send AV service=ppp3d22h: AAA/AUTHOR/TAC+: (3918374858): send AV protocol=ip3d22h: AAA/AUTHOR/TAC+: (3918374858): send AV addr*15.15.15.153d22h: TAC+: Opening TCP/IP to 171.68.118.101/49 timeout=53d22h: TAC+: Opened TCP/IP handle 0x16C9E0 to 171.68.118.101/493d22h: TAC+: Opened 171.68.118.101 index=13d22h: TAC+: 171.68.118.101 (3918374858) AUTHOR/START queued3d22h: TAC+: (3918374858) AUTHOR/START processed3d22h: TAC+: (3918374858): received author

```
response status = PASS_ADD3d22h: TAC+: Closing TCP/IP 0x16C9E0 connection to
171.68.118.101/493d22h: AAA/AUTHOR (3918374858): Post authorization status = PASS_ADD3d22h:
AAA/AUTHOR/IPCP As1: Processing AV service=ppp3d22h: AAA/AUTHOR/IPCP As1: Processing AV
protocol=ip3d22h: AAA/AUTHOR/IPCP As1: Processing AV addr*15.15.15.153d22h: AAA/AUTHOR/IPCP As1:
Authorization succeeded3d22h: AAA/AUTHOR/IPCP As1: Done. Her address 15.15.15.15, we want
15.15.15.153d22h: As1 IPCP: O CONFACK [ACKrcvd] id 3 len 163d22h: As1 IPCP: Address 15.15.15.15
(0x03060F0F0F0F)3d22h: As1 IPCP: PrimaryDNS 171.68.118.103 (0x8106AB447667)3d22h: As1 IPCP:
State is Open3d22h: As1 IPCP: Install route to 15.15.15.15rtpkreb#
```

comandos debug

Utilizaron a estos comandos debug de presentar el ejemplo de salida del debug en este documento.

Nota: Antes de ejecutar un comando de depuración, consulte [Información importante sobre comandos de depuración](#).

- ¿haga el debug de la autenticación aaa? Visualiza la información sobre la autenticación AAA.
- ¿debug aaa authorization? Visualiza la información sobre la autorización AAA.
- ¿debug tacacs+? Visualiza la información de debugging detallada asociada al TACACS+.
- ¿negociación ppp del debug? Visualiza los paquetes PPP transmitidos durante el inicio de PPP, donde se negocian las opciones PPP.

Información Relacionada

- [TACACS+ en documentación de IOS](#)
- [Página de soporte TACACS/TACACS+](#)
- [Soporte Técnico y Documentación - Cisco Systems](#)