Índice

Introdução

Este documento examina problemas comuns de debugação no RADIUS quando se usa o Password Authentication Protocol (PAP) ou o Challenge Handshake Authentication Protocol (CHAP). Os parâmetros de configuração de PC comuns para Microsoft Windows 95, Windows NT, Windows 98 e Windows 2000 são fornecidos, bem como exemplos de configurações e exemplos de debugações corretas e incorretas.

Antes de Começar

Convenções

Para obter mais informações sobre convenções de documento, consulte as Convenções de dicas técnicas Cisco.

Pré-requisitos

Não existem requisitos específicos para este documento.

Componentes Utilizados

A informação neste documento é baseada em Software Release 11.2 e Mais Recente de Cisco

IOS®.

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. Todos os dispositivos utilizados neste documento foram iniciados com uma configuração (padrão) inicial. Se você estiver trabalhando em uma rede ativa, certifique-se de que entende o impacto potencial de qualquer comando antes de utilizá-lo.

Ajuste de PC comum

Windows 95

Siga as instruções fornecidas abaixo:

1. Na janela de rede de comunicação dialup, selecione o nome de conexão, então **arquivo > propriedades**.
2. Na ABA de tipo de servidor, veja se a **caixa de senha criptografada da exigência** abaixo do tipo de server do Dial-up é verificada.Se esta caixa é verificada, significa que o PC aceita somente a autenticação chap.Se esta caixa não é verificada, significa que o PC aceita o PAP ou a autenticação chap.

Windows NT

Siga as instruções fornecidas abaixo:

1. No indicador da rede de comunicação dial-up, selecione o nome de conexão, e selecione então o **arquivo > propriedades**.
2. Verifique os ajustes na ABA de segurança:Se o **Accept any authentication que inclui o clear text box** é verificado, este significa que o PC aceita o PAP ou a RACHADURA.Se a caixa da **autenticação criptografada da aceitação somente** é verificada, o PC aceita somente a autenticação chap.

Windows 98

Siga as instruções fornecidas abaixo:

1. No indicador da rede de comunicação dial-up, selecione o nome de conexão, e selecione então **propriedades**.
2. Nos tipos de servidor catalogue, verifique os ajustes na área avançada das opções:Se a **caixa de senha criptografada da exigência** é desmarcada, esta significa que o PC aceita o PAP ou a autenticação chap.Se a **caixa de senha criptografada da exigência** é verificada, esta significa que o PC aceita somente a autenticação chap.

Windows 2000

Siga as instruções fornecidas abaixo:

1. Na rede e nas conexões dial-up, selecione o nome de conexão, e selecione então **propriedades**.

2. Na ABA de segurança, verifique os ajustes no **avançado > ajustes > permitem a estes a área de protocolos**:Se a caixa da **senha não criptografada (PAP)** é verificada, o PC aceita o PAP.Se a caixa do **protocolo de autenticação de cumprimento do desafio (RACHADURA)** é verificada, o PC aceita a RACHADURA pelo RFC 1994.Se a caixa do **Microsoft CHAP (MS-CHAP)** é verificada, o PC aceita a versão MS-CHAP 1 e não aceita a RACHADURA pelo RFC 1994.

Exemplos de configurações e depurações

RADIUS e PAP

Configuração - RAIO e PAP

```
Current configuration:!version 11.2service timestamps
debug uptimeno service password-encryptionservice udp-
small-serversservice 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 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!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
```

Comandos para outras versões de Cisco IOS

Nota: Para usar estes comandos, remova os comandos destacados da configuração acima e cole estes comandos dentro, como ditado por seu Cisco IOS Release.

Cisco IOS 11.3.3.T até 12.0.5.T

```
Current configuration:!version 11.2service timestamps debug uptimeno service password-
encryptionservice udp-small-serversservice 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 1pkX.$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!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 e mais tarde

Current configuration:!version 11.2service timestamps debug uptimeno service password-encryptionservice udp-small-serversservice 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 1pkX.$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!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

Exemplo de depurações - RADIUS e PAP

Nota: No resultado do debug, o texto em negrito destaca problemas debugar. O texto simples indica um debug correto.

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 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 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 CONFREJ [REQsent] id 99 len 8As1 LCP: AuthProto PAP (0x0304C023)As1 PPP: Closing connection because remote won't authenticate**4d02h: 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 61 6 000000004d02h: Attribute 1 9 6464756E4d02h: Attribute 2 18 7882E0A54d02h: Attribute 6 6 000000024d02h: Attribute 7 6 00000001**Radius 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.AAA/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 CONFREJ [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 e CHAP

Configuração - RAIO e RACHADURA

```
Current configuration:!version 11.2service timestamps
debug uptimeno service password-encryptionservice udp-
small-serversservice 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
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
```

Comandos para outras versões de Cisco IOS

Nota: Para usar estes comandos, remova os comandos destacados da configuração acima e cole estes comandos dentro, como ditado por seu Cisco IOS Release.

Cisco IOS 11.3.3.T até 12.0.5.T

```
Current configuration:!version 11.2service timestamps debug uptimeno service password-
encryptionservice udp-small-serversservice 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
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 e mais tarde

```
Current configuration:!version 11.2service timestamps debug uptimeno service password-
encryptionservice udp-small-serversservice 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
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
```

Exemplo de depurações - RADIUS e CHAP

Nota: No resultado do debug, o texto corajoso, italicizado destaca problemas debugar. O texto simples indica um debug correto.

```
rtpkrb#show debugGeneral 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 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 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 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: Denied**4d02h: 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 CONFREJ [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 debug

Os seguintes **comandos debug** foram usados produzir o exemplo de debug neste documento.

Nota: Antes de emitir **comandos debug**, consulte Informações importantes sobre comandos debug.

- **debugar a autenticação aaa** - Exibir informação na autenticação de AAA.
- debug aaa authorization - Exibe as informações sobre a autorização de AAA.
- **debugar o raio** - Indique o informação detalhada sobre debug associado com o Remote Authentication Dial-In User Server (RAIO).
- debug ppp negotiation - Exibe pacotes PPP transmitidos durante a inicialização de PPP, em que as opções de PPP são negociadas.

Informações Relacionadas

- Página de suporte RADIUS
- Suporte Técnico - Cisco Systems