

# Problèmes courants du débogage de RADIUS, PAP et CHAP

## Contenu

[Introduction](#)

[Avant de commencer](#)

[Conventions](#)

[Conditions préalables](#)

[Components Used](#)

[Paramètre PC commun](#)

[Windows 95](#)

[Windows NT](#)

[Windows 98](#)

[Windows 2000](#)

[Exemples de configurations et de débogage](#)

[RADIUS et PAP](#)

[Commandes pour d'autres versions de Cisco IOS](#)

[Exemples de débogages - RADIUS et PAP](#)

[RADIUS et CHAP](#)

[Commandes pour d'autres versions de Cisco IOS](#)

[Exemples de débogages - RADIUS et CHAP](#)

[Commandes de débogage](#)

[Informations connexes](#)

## [Introduction](#)

Ce document examine les problèmes de débogage courants pour RADIUS lors de l'utilisation du protocole PAP (Password Authentication Protocol) ou du protocole CHAP (Challenge Handshake Authentication Protocol). Des paramètres PC courants pour Microsoft Windows 95, Windows NT, Windows 98 et Windows 2000 sont fournis, ainsi que des exemples de configurations et des exemples de débogages bons et mauvais.

## [Avant de commencer](#)

### [Conventions](#)

Pour plus d'informations sur les conventions des documents, référez-vous aux [Conventions utilisées pour les conseils techniques de Cisco](#).

### [Conditions préalables](#)

Aucune condition préalable spécifique n'est requise pour ce document.

## Components Used

Les informations de ce document sont basées sur les versions 11.2 et ultérieures du logiciel Cisco IOS®.

Les informations présentées dans ce document ont été créées à partir de périphériques dans un environnement de laboratoire spécifique. All of the devices used in this document started with a cleared (default) configuration. Si vous travaillez dans un réseau opérationnel, assurez-vous de bien comprendre l'impact potentiel de toute commande avant de l'utiliser.

## Paramètre PC commun

### Windows 95

Suivez les instructions ci-dessous :

1. Dans la fenêtre Dialup Networking, sélectionnez le nom de la connexion, puis **Fichier > Propriétés**.
2. Dans l'onglet Type de serveur, vérifiez si la case **Exiger un mot de passe chiffré** sous Type de serveur d'accès à distance est cochée. Si cette case est cochée, cela signifie que le PC accepte uniquement l'authentification CHAP. Si cette case n'est pas cochée, cela signifie que le PC accepte l'authentification PAP ou CHAP.

### Windows NT

Suivez les instructions ci-dessous :

1. Dans la fenêtre Réseau à distance, sélectionnez le nom de la connexion, puis sélectionnez **Fichier > Propriétés**.
2. Vérifiez les paramètres de l'onglet Sécurité : Si la case **Accepter toute authentification, y compris en texte clair**, est cochée, cela signifie que le PC accepte PAP ou CHAP. Si la case **Accepter uniquement l'authentification chiffrée** est cochée, le PC accepte uniquement l'authentification CHAP.

### Windows 98

Suivez les instructions ci-dessous :

1. Dans la fenêtre Réseau à distance, sélectionnez le nom de la connexion, puis sélectionnez **Propriétés**.
2. Dans l'onglet Types de serveur, vérifiez les paramètres de la zone Options avancées : Si la case **Exiger un mot de passe chiffré** n'est pas cochée, cela signifie que le PC accepte l'authentification PAP ou CHAP. Si la case **Exiger un mot de passe chiffré** est cochée, cela signifie que le PC accepte uniquement l'authentification CHAP.

### Windows 2000

Suivez les instructions ci-dessous :

1. Dans Connexions réseau et accès à distance, sélectionnez le nom de la connexion, puis sélectionnez **Propriétés**.
2. Dans l'onglet Sécurité, vérifiez les paramètres de la zone **Advanced > Settings > Allow this protocols** : Si la case **Mot de passe non chiffré (PAP)** est cochée, le PC accepte PAP. Si la case **CHAP (Challenge Handshake Authentication Protocol)** est cochée, le PC accepte CHAP par [RFC 1994](#). Si la case **CHAP Microsoft (MS-CHAP)** est cochée, le PC accepte MS-CHAP version 1 et n'accepte pas CHAP par RFC 1994.

## Exemples de configurations et de débogage

### RADIUS et PAP

#### Configuration - RADIUS et PAP

```
Current configuration:
!
version 11.2
service timestamps debug uptime
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname rtpkrb
!
aaa new-model
!
!--- The following four command lines are specific to !-
-- Cisco IOS 11.2 and later, up until 11.3.3.T. !--- See
below this configuration for commands !--- for other
Cisco IOS releases. ! aaa authentication login default
radius local
aaa authentication ppp default if-needed radius local
aaa authorization exec radius if-authenticated
aaa authorization network radius if-authenticated
!
enable secret 5 $1$pkX.$JdAySRE1SbdbDe7bj0wyt0
enable password ww
!
username john password 0 doe
username cse password 0 csecse
ip host rtpkrb 10.31.1.5
ip domain-name RTP.CISCO.COM
ip name-server 171.68.118.103
!
interface Loopback0
ip address 1.1.1.1 255.255.255.0
!
interface Ethernet0
ip address 10.31.1.5 255.255.0.0
no mop enabled
!
interface Serial0
no ip address
no ip mroute-cache
shutdown
```

```

!
interface Serial1
no ip address
shutdown
!
interface Async1
ip unnumbered Ethernet0
encapsulation ppp
async mode dedicated
peer default ip address pool async
no cdp enable
ppp authentication pap
!
ip local pool async 15.15.15.15
ip classless
ip route 0.0.0.0 0.0.0.0 10.31.1.1
!
snmp-server community public RW
snmp-server host 171.68.118.100 traps public
radius-server host 171.68.118.101 auth-port 1645 acct-
port 1646
radius-server key cisco
!
line con 0
line 1
session-timeout 20
exec-timeout 20 0
password ww
autoselect during-login
autoselect ppp
modem InOut
transport input all
stopbits 1
speed 38400
flowcontrol hardware
line 2
modem InOut
speed 38400
flowcontrol hardware
line 3 16
line aux 0
line vty 0 4
exec-timeout 0 0
password ww
!
end

```

## [Commandes pour d'autres versions de Cisco IOS](#)

**Remarque :** Pour utiliser ces commandes, supprimez les commandes mises en surbrillance de la configuration ci-dessus et collez ces commandes dans, comme indiqué dans votre version de Cisco IOS.

### Cisco IOS 11.3.3.T jusqu'à 12.0.5.T

```

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

```

## Cisco IOS 12.0.5.T et versions ultérieures

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

### Exemples de débogages - RADIUS et PAP

**Note :** Dans la sortie de débogage, le texte en gras met en évidence les problèmes dans le débogage. Le texte brut indique un bon débogage.

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

**PC insists on doing chap ('accept encrypted authentication only'),  
but router is set up for pap:**

```
As1 LCP: I CONFNAK [REQsent] id 98 len 12
As1 LCP: AuthProto 0xC123 (0x0308C12301000001)
As1 LCP: O CONFREQ [REQsent] id 99 len 24
As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
As1 LCP: AuthProto PAP (0x0304C023)
As1 LCP: MagicNumber 0xF54D1AF8 (0x0506F54D1AF8)
As1 LCP: PFC (0x0702)
As1 LCP: ACFC (0x0802)
As1 LCP: I CONFREJ [REQsent] id 99 len 8
As1 LCP: AuthProto PAP (0x0304C023)
As1 PPP: Closing connection because remote won't authenticate
```

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

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

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

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

Key in router does not match that of server:

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

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

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

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

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

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

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

4d02h: RADIUS: Received from id 7 171.68.118.101:1645, Access-Accept, len 32  
4d02h: Attribute 6 6 00000002  
4d02h: Attribute 7 6 00000001  
4d02h: RADIUS: saved authorization data for user 15AD58 at 16C7F4  
4d02h: AAA/AUTHEN (1953436918): status = PASS  
4d02h: AAA/AUTHOR/LCP As1: Authorize LCP  
4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): user='ddunlap'  
4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): send AV service=ppp  
4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): send AV protocol=lcp  
4d02h: AAA/AUTHOR/LCP: Async1: (2587233868): Method=RADIUS  
4d02h: AAA/AUTHOR (2587233868): Post authorization status = PASS\_REPL  
4d02h: AAA/AUTHOR/LCP As1: Processing AV service=ppp  
4d02h: As1 PAP: O AUTH-ACK id 14 len 5  
4d02h: As1 PPP: Phase is UP  
4d02h: AAA/AUTHOR/FSM As1: (0): Can we start IPCP?  
4d02h: AAA/AUTHOR/FSM: Async1: (423372862): user='ddunlap'  
4d02h: AAA/AUTHOR/FSM: Async1: (423372862): send AV service=ppp  
4d02h: AAA/AUTHOR/FSM: Async1: (423372862): send AV protocol=ip

```

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

```

## RADIUS et CHAP

### Configuration - RADIUS et CHAP

Current configuration:



```
!  
version 11.2  
service timestamps debug uptime  
no service password-encryption  
service udp-small-servers  
service tcp-small-servers  
!  
hostname rtpkrb  
!  
aaa new-model  
!  
!--- The following four command lines are specific to !-  
-- Cisco IOS 11.2 and later, up until 11.3.3.T. !--- See  
below this configuration for commands !--- for other  
Cisco IOS releases. ! aaa authentication login default  
radius local  
aaa authentication ppp default if-needed radius local  
aaa authorization exec radius if-authenticated  
aaa authorization network radius if-authenticated  
!  
enable secret 5 $1$pkX.$JdAysRE1SbdbDe7bj0wyt0  
enable password ww  
!  
username john password 0 doe  
username cse password 0 csecse  
ip host rtpkrb 10.31.1.5  
ip name-server 171.68.118.103  
!  
interface Loopback0  
ip address 1.1.1.1 255.255.255.0  
!  
interface Ethernet0  
ip address 10.31.1.5 255.255.0.0  
no mop enabled  
!  
interface Serial0  
no ip address  
no ip mroute-cache  
shutdown  
!  
interface Serial1  
no ip address  
shutdown  
!  
interface Async1  
ip unnumbered Ethernet0  
encapsulation ppp  
async mode dedicated  
peer default ip address pool async  
no cdp enable  
ppp authentication chap  
!  
ip local pool async 15.15.15.15  
ip classless  
ip route 0.0.0.0 0.0.0.0 10.31.1.1  
!  
snmp-server community public RW  
snmp-server host 171.68.118.100 traps public  
radius-server host 171.68.118.101 auth-port 1645 acct-  
port 1646  
radius-server key cisco  
!  
line con 0  
line 1
```

```
session-timeout 20
exec-timeout 20 0
password ww
autoselect during-login
autoselect ppp
modem InOut
transport input all
stopbits 1
speed 38400
flowcontrol hardware
line 2
modem InOut
speed 38400
flowcontrol hardware
line 3 16
line aux 0
line vty 0 4
exec-timeout 0 0
password ww
!
end
```

## [Commandes pour d'autres versions de Cisco IOS](#)

**Remarque :** Pour utiliser ces commandes, supprimez les commandes mises en surbrillance de la configuration ci-dessus et collez ces commandes dans, comme indiqué dans votre version de Cisco IOS.

### [Cisco IOS 11.3.3.T jusqu'à 12.0.5.T](#)

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

### [Cisco IOS 12.0.5.T et versions ultérieures](#)

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

## [Exemples de débogages - RADIUS et CHAP](#)

**Note :** Dans la sortie de débogage, le texte gras en italique met en évidence les problèmes dans le débogage. Le texte brut indique un bon débogage.

```
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 on
rtpkrb#
4d02h: As1 LCP: I CONFREQ [Closed] id 0 len 20
```

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

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

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

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

Key in router does not match that of server:

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

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

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

Radius server refuses user because user is set up for pap,

user enters bad password, or both userid & password are bad:

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

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

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

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

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

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

## Commandes de débogage

Les commandes **debug** suivantes ont été utilisées pour produire l'exemple de sortie de débogage dans ce document.

**Note** : Avant d'émettre des commandes **debug**, consultez [Informations importantes sur les commandes de débogage](#).

- **debug aaa authentication** - Affiche les informations sur l'authentification AAA.
- **debug aaa Authorization** - Affiche des informations sur l'autorisation AAA.
- **debug radius** - Affiche les informations de débogage détaillées associées au serveur RADIUS (Remote Authentication Dial-In User Server).
- **debug ppp negotiation** - Affiche les paquets PPP transmis lors du démarrage PPP, où les options PPP sont négociées.

## Informations connexes

- [Page d'assistance RADIUS](#)
- [Support technique - Cisco Systems](#)