

# Hoe kunt u Layer 2 Tunnel Protocol-verificatie met TACACS+ configureren

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## [Inleiding](#)

Dit document beschrijft hoe u Layer 2 Tunnel Protocol (L2TP) met TACACS+ kunt configureren. Het omvat voorbeeldconfiguraties voor L2TP Access Concentrator (LAC) TACACS+ servers, L2TP Network Server (LNS) TACACS+ servers en routers.

## [Voorwaarden](#)

### [Vereisten](#)

Er zijn geen specifieke vereisten van toepassing op dit document.

### [Gebruikte componenten](#)

De informatie in dit document is gebaseerd op de volgende software- en hardware-versies:

- twee Cisco 2511 routers
- Cisco IOS®-software release 12.0(2)T
- Cisco Secure UNIX, Cisco Secure Windows of TACACS+-software

De informatie in dit document is gebaseerd op de apparaten in een specifieke laboratoriumomgeving. Alle apparaten die in dit document worden beschreven, hadden een opgeschoonde (standaard)configuratie. Als uw netwerk live is, moet u de potentiële impact van elke opdracht begrijpen.

## Conventies

Raadpleeg voor meer informatie over documentconventies de [technische Tips](#) van [Cisco](#).

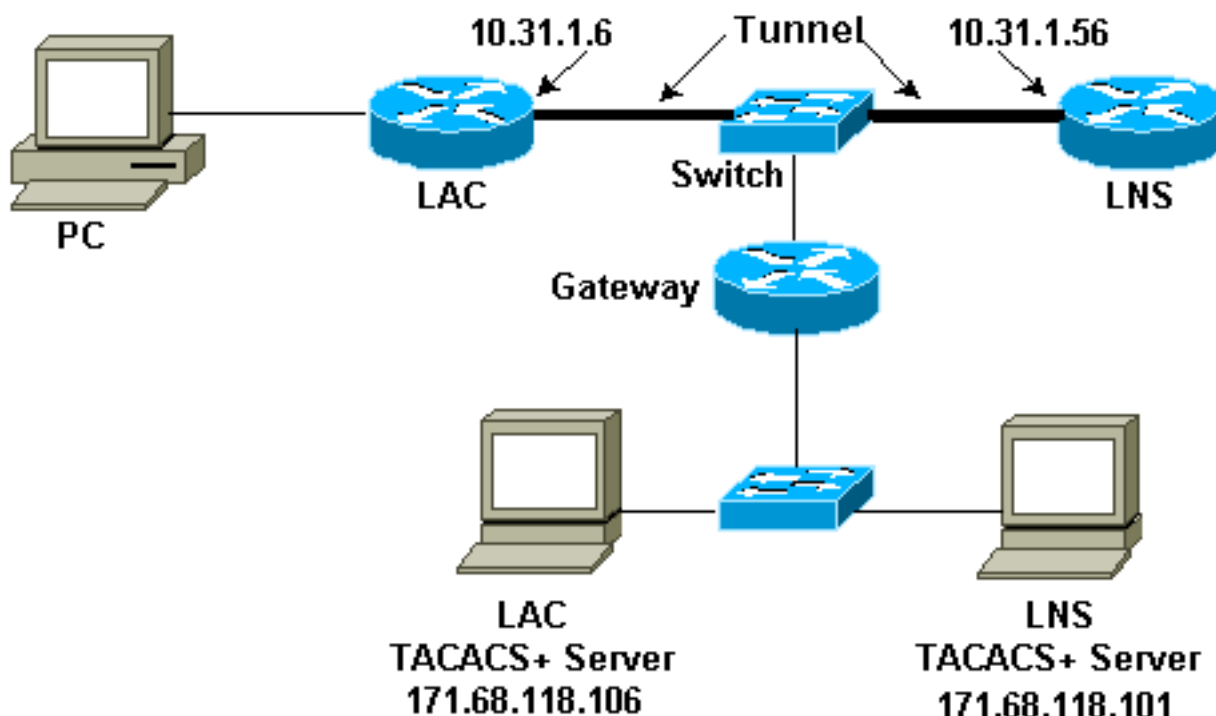
## Configureren

Deze sectie bevat informatie over het configureren van de functies die in dit document worden beschreven.

**N.B.:** Als u aanvullende informatie wilt vinden over de opdrachten in dit document, gebruikt u het [Opdrachtplanningprogramma](#) (alleen [geregistreerd](#) klanten).

## Netwerkdigram

Dit document gebruikt de netwerkinstellingen die in dit diagram worden weergegeven.



## Configuraties van TACACS+ servers

### LAC-configuratie - Cisco Secure UNIX

```

# ./ViewProfile -p 9900 -u rtp.cisco.com user = rtp.cisco.com{
service=ppp {
protocol=vpdn {
set tunnel-type=l2tp
set tunnel-id=rtp_tunnel
set ip-addresses="10.31.1.56"
}
}

}

# ./ViewProfile -p 9900 -u rtp_tunnel
user = rtp_tunnel{
password = chap "FGHIJ"
service=ppp {
protocol=lcp {
}
}
protocol=ip {
}
}

}

```

### [LNS-configuratie - Cisco Secure UNIX](#)

```

# ./ViewProfile -p 9900 -u janedoe@rtp.cisco.com
user = janedoe@rtp.cisco.com{
password = chap "rtprules"
service=ppp {
protocol=lcp {
}
}
protocol=ip {
}
}

}

# ./ViewProfile -p 9900 -u ABCDE
user = ABCDE{
password = chap "FGHIJ"
service=ppp {
protocol=lcp {
}
}
protocol=ip {
}
}

}

```

### [LAC-configuratie - Cisco Secure Windows](#)

Volg deze stappen om LAC op een Cisco Secure Windows te configureren:

1. Stel de gebruiker rtp\_tunnel in als een normale PPP-gebruiker (wachtwoord en/of het wachtwoord van het KAP in de Gebruikersinstelling).
2. Plaats de gebruiker in groep\_1 en controleer de service **PPP/IP**. Controleer **PPP/LCP** als dat venster wordt weergegeven.
3. Stel de gebruiker rtp.cisco.com in. Het wachtwoord is "kan het niet schelen."
4. Als bepaalde opties niet in groepinstellingen worden weergegeven, gaat u naar de **interfaceconfiguratie** en selecteert u de vakjes om ze te laten verschijnen.

5. Plaats de gebruiker in groep\_2 en controleer de service **PPP/VPDN**. De tunnel-id is **rtp\_tunnel**, de ip adreslijst is **10.31.1.56**, en in het rechthoekige op maat-eigenschap vakje eronder, type **tunnel-type=l2tp**.

### [LNS-configuratie - Cisco Secure Windows](#)

Volg deze stappen om LNS voor Cisco Secure Windows te configureren:

1. Stel gebruikers 'ABCDE' en 'janedoe@rtp.cisco.com' in als normale PPP-gebruikers (wachtwoord en/of het wachtwoord van CHAP in de gebruikersinstelling).
2. Plaats de gebruikers in groep\_3 en controleer de dienst **PPP/IP**. Controleer **PPP/LCP** als dat venster wordt weergegeven.

### [Configuratie LAC-TACACS+ software](#)

```
user = rtp.cisco.com {
service = ppp protocol = vpdn {
tunnel-type = l2tp
tunnel-id = rtp_tunnel
ip-addresses = "10.31.1.56"
}
}
```

```
user = rtp_tunnel {
chap = cleartext "FGHIJ"
service = ppp protocol = ip {
default attribute = permit
}
}
```

### [LNS-configuratie voor TACACS+ bestanden](#)

```
key = "cisco"
```

```
user = janedoe@rtp.cisco.com {
chap = cleartext "rtprules"
service = ppp protocol = ip {
default attribute = permit
}
}
```

```
user = ABCDE {
chap = cleartext "FGHIJ"
service = ppp protocol = ip {
default attribute = permit
}
}
```

### [Routerconfiguratie](#)

LAC-routerconfiguratie
version 12.0 service timestamps debug datetime service timestamps log uptime

```
no service password-encryption
!
hostname LAC
!
aaa new-model
aaa authentication ppp default if-needed tacacs+
aaa authorization network default tacacs+
aaa accounting network default start-stop tacacs+
enable secret level 7 5 $1$Dj3K$9jkyuJR6fJV2JO./Qt01C1
enable password ww
!
username john password 0 doe
ip subnet-zero
no ip domain-lookup
!
vpdn enable
!
vpdn search-order domain
!
interface Loopback0
no ip address
no ip directed-broadcast
!
interface Ethernet0
ip address 10.31.1.144 255.255.255.0
no ip directed-broadcast
!
interface Serial0
no ip address
no ip directed-broadcast
no ip mroute-cache
shutdown
!
interface Serial1
no ip address
no ip directed-broadcast
shutdown
!
interface Async1
ip unnumbered Ethernet0
no ip directed-broadcast
ip tcp header-compression passive
encapsulation ppp
async mode dedicated
peer default ip address pool default
ppp authentication chap
!
ip local pool default 10.5.5.5 10.5.5.50
ip classless
ip route 0.0.0.0 0.0.0.0 10.31.1.1
!
tacacs-server host 171.68.118.106
tacacs-server key cisco
!
line con 0
transport input none
line 1
exec-timeout 0 0
autoselect during-login
autoselect ppp
modem Dialin
transport preferred none
transport output none
speed 38400
```

```
flowcontrol hardware
line 2 16
modem InOut
transport input all
speed 38400
flowcontrol hardware
line aux 0
line vty 0 4
password WW
!
end
```

## LNS-routerconfiguratie

```
version 12.0
service timestamps debug datetime
service timestamps log uptime
no service password-encryption
!
hostname LNS
!
aaa new-model
aaa authentication ppp default if-needed tacacs+
aaa authorization network default tacacs+
aaa accounting network default start-stop tacacs+
enable secret 5 $1$wfMI$ixUG9hw7yhmsv.87.krpZ1
enable password WW
!
username john password 0 doe
ip subnet-zero
no ip domain-lookup
!
vpdn enable
!
vpdn-group 1
accept dialin l2tp virtual-template 1 remote rtp_tunnel
local name ABCDE
!
interface Ethernet0
ip address 10.31.1.56 255.255.255.0
no ip directed-broadcast
!
interface Virtual-Template1
ip unnumbered Ethernet0
no ip directed-broadcast
peer default ip address pool default
ppp authentication chap
!
interface Serial0
no ip address
no ip directed-broadcast
no ip mroute-cache
shutdown
!
interface Serial1
no ip address
no ip directed-broadcast
shutdown
!
interface Async1
ip unnumbered Ethernet0
no ip directed-broadcast
```

```
ip tcp header-compression passive
encapsulation ppp
async mode dedicated
peer default ip address pool setup_pool
ppp authentication chap pap
!
!
!
!
ip local pool default 10.6.1.1 10.6.1.2
ip classless
ip route 0.0.0.0 0.0.0.0 10.31.1.1
!
tacacs-server host 171.68.118.101
tacacs-server key cisco
!
line con 0
transport input none
line 1 8
autoselect during-login
autoselect ppp
modem Dialin
speed 115200
flowcontrol hardware
line aux 0
line vty 0 4
password WW
!
end
```

## Verifiëren

### Opdracht-uitvoer van beide routers tonen

Deze sectie verschaft informatie die u kunt gebruiken om te bevestigen dat uw configuratie correct werkt.

Bepaalde opdrachten met **show** worden ondersteund door de tool [Output Interpreter \(alleen voor geregistreerde klanten\)](#). Hiermee kunt u een analyse van de output van opdrachten met **show** genereren.

### LAC-router

```
LAC#show vpdn session
```

```
L2TP Session Information (Total tunnels=1 sessions=1)
```

```
LocID RemID TunID Intf Username State Last Chg
1 1 76 As1 janedoe@rtpt.c est 00:00:32
```

```
% No active L2F tunnels
```

```
LAC#show vpdn tunnel
```

```
L2TP Tunnel Information (Total tunnels=1 sessions=1)
```

```
LocID RemID Remote Name State Remote Address Port Sessions
76 58 ABCDE est 10.31.1.56 1701 1
```

% No active L2F tunnels

## [LNS-router](#)

LNS#**show vpdn session**

L2TP Session Information (Total tunnels=1 sessions=1)

LocID	RemID	TunID	Intf	Username	State	Last	Chg
1	1	58	Vi1	janedoe@rtp.c	est	00:01:55	

% No active L2F tunnels

LNS#**show vpdn tunnel**

L2TP Tunnel Information (Total tunnels=1 sessions=1)

LocID	RemID	Remote	Name	State	Remote	Address	Port	Sessions
58	76	rtp_tunnel	est	10.31.1.144	1701	1		

% No active L2F tunnels

## [Uitvoer van versie van beide routers tonen](#)

LAC#**show version**

Cisco Internetwork Operating System Software  
IOS (tm) 2500 Software (C2500-IS-L), Version 12.0(2)T, RELEASE SOFTWARE (fc1)  
Copyright (c) 1986-1998 by cisco Systems, Inc.  
Compiled Wed 09-Dec-98 02:31 by dschwart  
Image text-base: 0x030403B0, data-base: 0x00001000

ROM: System Bootstrap, Version 11.0(10c), SOFTWARE  
BOOTFLASH: 3000 Bootstrap Software (IGS-BOOT-R), Version 11.0(10c), RELEASE SOFTWARE (fc1)

LAC uptime is 20 hours, 22 minutes  
System restarted by reload at 16:13:55 UTC Fri Jan 29 1999  
System image file is "flash:c2500-is-l.120-2.T"

cisco 2511 (68030) processor (revision M) with 14336K/2048K bytes of memory.  
Processor board ID 07041186, with hardware revision 00000000  
Bridging software.  
X.25 software, Version 3.0.0.  
1 Ethernet/IEEE 802.3 interface(s)  
2 Serial network interface(s)  
16 terminal line(s)  
32K bytes of non-volatile configuration memory.  
16384K bytes of processor board System flash (Read ONLY)  
Configuration register is 0x2102

## [Wat kan er fout gaan - slechte debug van LAC](#)

Dit debug uitvoer omvat commentaren op waar de opeenvolging stopt wanneer de router verkeerd wordt ingesteld.

LAC#**show debug**

General OS:  
AAA Authentication debugging is on  
AAA Authorization debugging is on  
AAA Accounting debugging is on



```

VPN:
L2X protocol events debugging is on
L2X protocol errors debugging is on
VPDN events debugging is on
VPDN errors debugging is on
VTEMPLATE:
Virtual Template debugging is on
LAC#
Jan 30 12:17:09: As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
20:03:18: %LINK-3-UPDOWN: Interface Async1, changed state to up
Jan 30 12:17:09: As1 VPDN: Looking for tunnel -- rtp.cisco.com --
Jan 30 12:17:09: AAA: parse name=Async1 idb type=10 tty=1
Jan 30 12:17:09: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0
port=1 channel=0
Jan 30 12:17:09: AAA/AUTHEN: create_user (0x278B90) user='rtp.cisco.com'
ruser='' port='Async1'
rem_addr='' authn_type=NONE service=LOGIN priv=0
Jan 30 12:17:09: AAA/AUTHOR/VPDN (898425447): Port='Async1'
list='default' service=NET
Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) user='rtp.cisco.com'
Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) send AV service=ppp
Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) send AV protocol=vpdn
Jan 30 12:17:09: AAA/AUTHOR/VPDN (898425447) found list "default"
Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) Method=TACACS+
Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): user=rtp.cisco.com
Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): send AV service=ppp
Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): send AV protocol=vpdn
Jan 30 12:17:09: TAC+: (898425447): received author response status = PASS_ADD
Jan 30 12:17:09: AAA/AUTHOR (898425447): Post authorization status = PASS_ADD
Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV service=ppp
Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV protocol=vpdn
Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV tunnel-type=l2tp
Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV tunnel-id=rtp_tunnel
!--- If the wrong tunnel termination IP address !--- is in the profile: Jan 30 12:56:30:
AAA/AUTHOR/VPDN: Processing AV ip-addresses=1.1.1.1
Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV ip-addresses=10.31.1.56
Jan 30 12:17:09: As1 VPDN: Get tunnel info for rtp.cisco.com with LAC
rtp_tunnel, IP 10.31.1.56
Jan 30 12:17:09: AAA/AUTHEN: free_user (0x278B90) user='rtp.cisco.com'
ruser='' port='Async1'
rem_addr='' authn_type=NONE service=LOGIN priv=0
!--- If the wrong tunnel termination IP !--- address is in the profile: Jan 30 12:56:30: As1
VPDN: Forward to address 1.1.1.1
!--- The connection eventually drops on this end and no !--- debug is seen on the other end. Jan
Jan 30 12:17:09: As1 VPDN: Forward to address 10.31.1.56 Jan 30 12:17:09: As1 VPDN: Forwarding...
Jan 30 12:17:09: AAA: parse name=Async1 idb type=10 tty=1 Jan 30 12:17:09: AAA: name=Async1
flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0 Jan 30 12:17:09: AAA/AUTHEN:
create_user (0x22CDEC) user='janedoe@rtp.cisco.com' ruser='' port='Async1' rem_addr='async'
authn_type=CHAP service=PPP priv=1 Jan 30 12:17:09: As1 VPDN: Bind interface direction=1 Jan 30
12:17:09: Tnl/C1 74/1 L2TP: Session FS enabled Jan 30 12:17:09: Tnl/C1 74/1 L2TP: Session state
change from idle to wait-for-tunnel Jan 30 12:17:09: As1 74/1 L2TP: Create session Jan 30
12:17:09: Tnl 74 L2TP: SM State idle Jan 30 12:17:09: Tnl 74 L2TP: O SCCRQ Jan 30 12:17:09: Tnl
74 L2TP: Tunnel state change from idle to wait-ctl-reply Jan 30 12:17:09: Tnl 74 L2TP: SM State
wait-ctl-reply Jan 30 12:17:09: As1 VPDN: janedoe@rtp.cisco.com is forwarded Jan 30 12:17:10:
Tnl 74 L2TP: I SCCRP from ABCDE Jan 30 12:17:10: Tnl 74 L2TP: Got a challenge from remote peer,
ABCDE Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1 Jan 30 12:17:10: AAA/AUTHEN:
create_user (0x23232C) user='rtp_tunnel' ruser='' port='' rem_addr='' authn_type=CHAP
service=PPP priv=1 Jan 30 12:17:10: AAA/AUTHEN/START (1598999635): port='' list='default'
action=SENDAUTH service=PPP Jan 30 12:17:10: AAA/AUTHEN/START (1598999635): found list default
Jan 30 12:17:10: AAA/AUTHEN (1598999635): status = UNKNOWN Jan 30 12:17:10: AAA/AUTHEN/START
(1598999635): Method=TACACS+ Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193
id=1598999635 Jan 30 12:17:10: TAC+: ver=192 id=1598999635 received AUTHEN status = ERROR Jan 30
12:17:10: AAA: parse name= idb type=-1 tty=-1 Jan 30 12:17:10: AAA/AUTHEN: create_user
(0x232470) user='rtp_tunnel' ruser='' port='' rem_addr='' authn_type=CHAP service=PPP priv=1

```

```

Jan 30 12:17:10: TAC+: ver=192 id=3400389836 received AUTHEN status = PASS Jan 30 12:17:10:
AAA/AUTHEN: free_user (0x232470) user='rtp_tunnel' ruser='' port='' rem_addr='' authen_type=CHAP
service=PPP priv=1 Jan 30 12:17:10: AAA/AUTHEN (1598999635): status = PASS Jan 30 12:17:10:
AAA/AUTHEN: free_user (0x23232C) user='rtp_tunnel' ruser='' port='' rem_addr='' authen_type=CHAP
service=PPP priv=1 !--- Change the CHAP passwords. The password rtp_tunnel !--- in the LAC
TACACS+ users' file does not match the !--- password for "local name ABCDE" from the router !---
in the LNS TACACS+ users' file: Jan 30 13:24:23: Tnl 88 L2TP: Tunnel Authentication fails for
ABCDE
Jan 30 13:24:23: Tnl 88 L2TP: Expected 7C959CA96C1E4AAA68BB3D481249488B
Jan 30 13:24:23: Tnl 88 L2TP: Got E4118FB4C8C4467EA4BF8872276C20B2

Jan 30 12:17:10: Tnl 74 L2TP: Got a response from remote peer, ABCDE
Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:10: AAA/AUTHEN: create_user (0x22FBA4) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): port='' list='default'
action=SENDAUTH service=PPP
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): found list default
Jan 30 12:17:10: AAA/AUTHEN (2964849625): status = UNKNOWN
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): Method=TACACS+
Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=2964849625
20:03:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1,
changed state to up
Jan 30 12:17:11: TAC+: ver=192 id=2964849625 received AUTHEN status = ERROR
Jan 30 12:17:11: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:11: AAA/AUTHEN: create_user (0x22FC8C) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: As1 74/1 L2TP: Discarding data packet because tunnel is not open
Jan 30 12:17:11: As1 74/1 L2TP: Discarding data packet because tunnel is not open
Jan 30 12:17:11: TAC+: ver=192 id=1474818051 received AUTHEN status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x22FC8C) user='rtp_tunnel' ruser=''
port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: AAA/AUTHEN (2964849625): status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x22FBA4) user='rtp_tunnel' ruser=''
port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: Tnl 74 L2TP: Tunnel Authentication success
Jan 30 12:17:11: Tnl 74 L2TP: Tunnel state change from wait-ctl-reply to
established
Jan 30 12:17:11: Tnl 74 L2TP: O SCCCN to ABCDE tnlid 56
Jan 30 12:17:11: Tnl 74 L2TP: SM State established
Jan 30 12:17:11: As1 74/1 L2TP: O ICRQ to ABCDE 56/0
Jan 30 12:17:11: As1 74/1 L2TP: Session state change from wait-for-tunnel
to wait-reply
Jan 30 12:17:11: Tnl 74 L2TP: Dropping old CM, Ns 0, expected 1
Jan 30 12:17:11: As1 74/1 L2TP: O ICCN to ABCDE 56/1
Jan 30 12:17:11: As1 74/1 L2TP: Session state change from wait-reply to
established
LAC#

```

## [Wat kan er fout gaan - slechte debug van LNS](#)

Dit debug uitvoer omvat commentaren op waar de opeenvolging stopt wanneer de router verkeerd wordt ingesteld.

LNS#**show debug**

General OS:

AAA Authentication debugging is on

AAA Authorization debugging is on

AAA Accounting debugging is on

VPN:

L2X protocol events debugging is on

L2X protocol errors debugging is on

VPDN events debugging is on

VPDN errors debugging is on

VTEMPLATE:

Virtual Template debugging is on

LNS#

Jan 30 12:17:09: L2TP: I SCCRQ from rtp\_tunnel tnl 74

Jan 30 12:17:09: Tnl 56 L2TP: New tunnel created for remote rtp\_tunnel,  
address 10.31.1.144

*!--- Instead of the LAC sending the "rtp\_tunnel" !--- (see the user profile on the TACACS+ server), it sends "junk". !--- We are expecting "rtp\_tunnel" as in "accept dialin l2tp !--- virtual-template 1 remote rtp\_tunnel" in this configuration: Jan 30 13:05:16: L2TP: I SCCRQ from junk tnl 81*

**Jan 30 13:05:16: L2X: Never heard of junk**

**Jan 30 13:05:16: L2TP: Could not find info block for junk**

Jan 30 12:17:09: Tnl 56 L2TP: Got a challenge in SCCRQ, rtp\_tunnel

Jan 30 12:17:09: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x21F6D0) user='ABCDE'  
ruser='' port=''

rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): port='' list='default'  
action=SENDAUTH service=PPP

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): found list default

Jan 30 12:17:09: AAA/AUTHEN (3194595626): status = UNKNOWN

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): Method=TACACS+

Jan 30 12:17:09: TAC+: send AUTHEN/START packet ver=193 id=3194595626

Jan 30 12:17:09: TAC+: ver=192 id=3194595626 received AUTHEN status = ERROR

Jan 30 12:17:09: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x2281AC) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: TAC+: ver=192 id=3639011179 received AUTHEN status = PASS

Jan 30 12:17:09: AAA/AUTHEN: free\_user (0x2281AC) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: AAA/AUTHEN (3194595626): status = PASS

Jan 30 12:17:09: AAA/AUTHEN: free\_user (0x21F6D0) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: Tnl 56 L2TP: O SCCRP to rtp\_tunnel tnlid 74

Jan 30 12:17:09: Tnl 56 L2TP: Tunnel state change from idle to wait-ctl-reply

Jan 30 12:17:10: Tnl 56 L2TP: O Resend SCCRP, flg TLF, ver 2, len 152,  
tnl 74, cl 0, ns 0, nr 1

Jan 30 12:17:10: Tnl 56 L2TP: I SCCCN from rtp\_tunnel tnl 74

Jan 30 12:17:10: Tnl 56 L2TP: Got a Challenge Response in SCCCN from rtp\_tunnel

Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:10: AAA/AUTHEN: create\_user (0x227F3C) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:10: AAA/AUTHEN/STARTTranslating "rtp.cisco.com"  
(4117701992): port='' list='default' action=SENDAUTH service=PPP

Jan 30 12:17:10: AAA/AUTHEN/START (4117701992): found list default

Jan 30 12:17:10: AAA/AUTHEN (4117701992): status = UNKNOWN

Jan 30 12:17:10: AAA/AUTHEN/START (4117701992): Method=TACACS+

Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=4117701992

Jan 30 12:17:11: TAC+: ver=192 id=4117701992 received AUTHEN status = ERROR

Jan 30 12:17:11: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:11: AAA/AUTHEN: create\_user (0x228E68) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:11: TAC+: ver=192 id=2827432721 received AUTHEN status = PASS

Jan 30 12:17:11: AAA/AUTHEN: free\_user (0x228E68) user='ABCDE' ruser='' port=''  
rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:11: AAA/AUTHEN (4117701992): status = PASS

Jan 30 12:17:11: AAA/AUTHEN: free\_user (0x227F3C) user='ABCDE' ruser='' port=''

```
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: Tnl 56 L2TP: Tunnel Authentication success
Jan 30 12:17:11: Tnl 56 L2TP: Tunnel state change from wait-ctl-reply
to established
Jan 30 12:17:11: Tnl 56 L2TP: SM State established
Jan 30 12:17:11: Tnl 56 L2TP: I ICRQ from rtp_tunnel tnl 74
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: Session FS enabled
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: Session state change from idle to
wait-for-tunnel
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: New session created
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: O ICRP to rtp_tunnel 74/1
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: Session state change from wait-for-tunnel
to wait-connect
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: I ICCN from rtp_tunnel tnl 74, cl 1
Jan 30 12:17:11: Tnl/C1 56/1 L2TP: Session state change from wait-connect
to established
Jan 30 12:17:11: Vi1 VTEMPLATE: Reuse Vi1, recycle queue size 0
Jan 30 12:17:11: Vi1 VTEMPLATE: Hardware address 00e0.1e68.942c
Jan 30 12:17:11: Vi1 VPDN: Virtual interface created for janedoe@rtp.cisco.com
Jan 30 12:17:11: Vi1 VPDN: Set to Async interface
Jan 30 12:17:11: Vi1 VPDN: Clone from Vtemplate 1 filterPPP=0 blocking
Jan 30 12:17:11: Vi1 VTEMPLATE: Has a new cloneblk vtemplate, now it has
vtemplate
Jan 30 12:17:11: Vi1 VTEMPLATE: ***** CLONE VACCESS1 *****
Jan 30 12:17:11: Vi1 VTEMPLATE: Clone from Virtual-Templatel
interface Virtual-Access1
default ip address
no ip address
encap ppp
ip unnumbered Ethernet0
peer default ip address pool default
ppp authentication chap
ip unnum ethernet0
peer def ip address pool default
ppp authen chap
end

Jan 30 12:17:12: janedoe@rtp.cisco.com 56/1 L2TP: Session with no hwidb
20:12:14: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up
Jan 30 12:17:13: Vi1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
Jan 30 12:17:13: Vi1 VPDN: Bind interface direction=2
Jan 30 12:17:13: Vi1 VPDN: PPP LCP accepted rcv CONFACK
Jan 30 12:17:13: Vi1 VPDN: PPP LCP accepted sent CONFACK
Jan 30 12:17:13: Vi1 L2X: Discarding packet because of no mid/session
Jan 30 12:17:13: AAA: parse name=Virtual-Access1 idb type=21 tty=-1
Jan 30 12:17:13: AAA: name=Virtual-Access1 flags=0x11 type=5 shelf=0 slot=0
adapter=0 port=1 channel=0
Jan 30 12:17:13: AAA/AUTHEN: create_user (0x1F5100) user='janedoe@rtp.cisco.com'
ruser='' port='Virtual-Access1' rem_addr='' authen_type=CHAP
service=PPP priv=1
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): port='Virtual-Access1' list=''
action=LOGIN service=PPP
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): using "default" list
Jan 30 12:17:13: AAA/AUTHEN (562517969): status = UNKNOWN
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): Method=TACACS+
Jan 30 12:17:13: TAC+: send AUTHEN/START packet ver=193 id=562517969
Jan 30 12:17:14: TAC+: ver=192 id=562517969 received AUTHEN status = GETPASS
Jan 30 12:17:14: AAA: parse name=Virtual-Access1 idb type=-1 tty=-1
Jan 30 12:17:14: AAA: name=Virtual-Access1 flags=0x11 type=6 shelf=0 slot=0
adapter=0 port=1 channel=0
Jan 30 12:17:14: AAA/AUTHEN: create_user (0x1F5270) user='janedoe@rtp.cisco.com'
ruser='' port='Virtual-Access1' rem_addr='' authen_type=CHAP
service=PPP priv=1
Jan 30 12:17:14: TAC+: ver=192 id=2384902384 received AUTHEN status = PASS
```

Jan 30 12:17:14: AAA/AUTHEN: free\_user (0x1F5270) user='janedoe@rtp.cisco.com'  
ruser='' port='Virtual-Access1' rem\_addr='' authen\_type=CHAP  
service=PPP priv=1

*!--- Here, the tunnel is ok, but the user !--- enters a bad password in dialing: Jan 30*  
**13:39:44: AAA/AUTHEN (1958732267): status = FAIL**

**21:34:45: %VPDN-6-AUTHENFAIL: L2F HGW 10.31.1.144, AAA authentication  
failure for Vi1 user**

**janedoe@rtp.cisco.com; Authentication failure**

Jan 30 12:17:14: AAA/AUTHEN (562517969): status = PASS  
Jan 30 12:17:14: Vi1 AAA/AUTHOR/LCP: Authorize LCP  
Jan 30 12:17:14: AAA/AUTHOR/LCP Vi1 (413543389): Port='Virtual-Access1'  
list='' service=NET  
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) user='janedoe@rtp.cisco.com'  
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) send AV service=ppp  
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) send AV protocol=lcp  
Jan 30 12:17:14: AAA/AUTHOR/LCP (413543389) found list "default"  
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) Method=TACACS+  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): user=janedoe@rtp.cisco.com  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): send AV service=ppp  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): send AV protocol=lcp  
Jan 30 12:17:14: TAC+: (413543389): received author response status = PASS\_ADD  
Jan 30 12:17:14: AAA/AUTHOR (413543389): Post authorization status = PASS\_ADD  
Jan 30 12:17:14: AAA/ACCT/NET/START User janedoe@rtp.cisco.com, Port  
Virtual-Access1, List ""  
Jan 30 12:17:14: AAA/ACCT/NET: Found list "default"  
Jan 30 12:17:14: Vi1 AAA/AUTHOR/FSM: (0): Can we start IPCP?  
Jan 30 12:17:14: AAA/AUTHOR/FSM Vi1 (1358526470): Port='Virtual-Access1'  
list='' service=NET  
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) user='janedoe@rtp.cisco.com'  
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) send AV service=ppp  
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) send AV protocol=ip  
Jan 30 12:17:14: AAA/AUTHOR/FSM (1358526470) found list "default"  
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) Method=TACACS+  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): user=janedoe@rtp.cisco.com  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): send AV service=ppp  
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): send AV protocol=ip  
Jan 30 12:17:14: TAC+: (1358526470): received author response status = PASS\_ADD  
Jan 30 12:17:14: AAA/AUTHOR (1358526470): Post authorization status = PASS\_ADD  
Jan 30 12:17:14: Vi1 AAA/AUTHOR/FSM: We can start IPCP  
Jan 30 12:17:14: TAC+: (1442592025): received acct response status = UNKNOWN  
20:12:16: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,  
changed state to up  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0,  
we want 0.0.0.0  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0,  
we want 10.6.1.1  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0,  
we want 10.6.1.1  
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 10.6.1.1,  
we want 10.6.1.1  
Jan 30 12:17:16: AAA/AUTHOR/IPCP Vi1 (3572380713): Port='Virtual-Access1'  
list='' service=NET  
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) user='janedoe@rtp.cisco.com'  
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV service=ppp  
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV protocol=ip  
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV addr\*10.6.1.1

```
Jan 30 12:17:16: AAA/AUTHOR/IPCP (3572380713) found list "default"
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) Method=TACACS+
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): user=janedoe@rtp.cisco.com
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV service=ppp
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV protocol=ip
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV addr*10.6.1.1
Jan 30 12:17:17: TAC+: (3572380713): received author response status = PASS_ADD
Jan 30 12:17:17: AAA/AUTHOR (3572380713): Post authorization status = PASS_ADD
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV addr*10.6.1.1
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Done. Her address 10.6.1.1,
we want 10.6.1.1
```

LNS#

## [LNS-accounting records](#)

Dit staat op de LNS TACACS+ server.

```
Sat Jan 30 05:27:01 1999 10.31.1.56 janedoe@rtp.cisco.com
Virtual-Access1 unknown
start task_id=4 start_time=917700054 timezone=UTC service=ppp
```

```
Sat Jan 30 05:27:27 1999 10.31.1.56 janedoe@rtp.cisco.com
Virtual-Access1 unknown
stop task_id=4 start_time=917700054 timezone=UTC service=ppp
protocol=ip addr=10.6.1.1 disc-cause=2 disc-cause-ext=1011
pre-bytes-in=0 pre-bytes-out=8
pre-paks-in=0 pre-paks-out=2 bytes_in=862 bytes_out=142
paks_in=19 paks_out=8 pre-session-time=1
```

## [Problemen oplossen](#)

Deze sectie bevat informatie waarmee u problemen met de configuratie kunt oplossen.

### [Opdrachten voor troubleshooting](#)

**Opmerking:** Voordat u **debug**-opdrachten afgeeft, raadpleegt u [Belangrijke informatie over debug-opdrachten](#).

- **debug van verificatie**—informatie over AAA/TACACS+-verificatie wordt weergegeven.
- **debug van autorisatie**—informatie over AAA/TACACS+ autorisatie wordt weergegeven.
- **debug van accounting**-displays op verantwoordelijke gebeurtenissen aangezien ze plaatsvinden. De door deze opdracht weergegeven informatie is onafhankelijk van het boekhoudprotocol dat wordt gebruikt om de boekhoudkundige informatie aan een server over te dragen.
- **debug van tacacs+**-displays gedetailleerde zuiveringsinformatie geassocieerd met TACACS+.
- **debug Vsjabloon**-Hier wordt informatie over klonen voor een virtuele toegangsinterface weergegeven vanaf het moment dat het geluid van een virtuele sjabloon wordt gekloond tot het moment dat de virtuele toegangsinterface afloopt wanneer de oproep stopt.
- **debug VPDN fout**-displays die verhinderen dat een PPP-tunnel wordt aangelegd of fouten die veroorzaken dat een ingestelde tunnel wordt gesloten.
- **debug VPDN gebeurtenissen**-displays over gebeurtenissen die deel uitmaken van de normale PPP-tunnelvestiging of shutdown.



- **debug vpdn l2x-fouten**—Hiermee wordt Layer 2-protocolfouten weergegeven die een Layer 2-instelling voorkomen of de normale werking ervan voorkomen.
- **debug vpdn l2x-gebeurtenissen-displays** over gebeurtenissen die deel uitmaken van de normale PPP-tunnelvestiging of shutdown voor Layer 2.

## Debug Uitvoer

### Good Debug van LAC router

LAC#**show debug**

General OS:

AAA Authentication debugging is on

AAA Authorization debugging is on

AAA Accounting debugging is on

VPN:

L2X protocol events debugging is on

L2X protocol errors debugging is on

VPDN events debugging is on

VPDN errors debugging is on

VTEMPLATE:

Virtual Template debugging is on

LAC#

Jan 30 12:17:09: As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially

20:03:18: %LINK-3-UPDOWN: Interface Async1, changed state to up

Jan 30 12:17:09: As1 VPDN: Looking for tunnel -- rtp.cisco.com --

Jan 30 12:17:09: AAA: parse name=Async1 idb type=10 tty=1

Jan 30 12:17:09: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x278B90) user='rtp.cisco.com' ruser=''

port='Async1' rem\_addr='' authen\_type=NONE service=LOGIN priv=0

Jan 30 12:17:09: AAA/AUTHOR/VPDN (898425447): Port='Async1' list='default' service=NET

Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) user='rtp.cisco.com'

Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) send AV service=ppp

Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) send AV protocol=vpdn

Jan 30 12:17:09: AAA/AUTHOR/VPDN (898425447) found list "default"

Jan 30 12:17:09: AAA/AUTHOR/VPDN: (898425447) Method=TACACS+

Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): user=rtp.cisco.com

Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): send AV service=ppp

Jan 30 12:17:09: AAA/AUTHOR/TAC+: (898425447): send AV protocol=vpdn

Jan 30 12:17:09: TAC+: (898425447): received author response status = PASS\_ADD

Jan 30 12:17:09: AAA/AUTHOR (898425447): Post authorization status = PASS\_ADD

Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV service=ppp

Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV protocol=vpdn

Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV tunnel-type=l2tp

Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV tunnel-id=rtp\_tunnel

Jan 30 12:17:09: AAA/AUTHOR/VPDN: Processing AV ip-addresses=10.31.1.56

Jan 30 12:17:09: As1 VPDN: Get tunnel info for rtp.cisco.com with LAC rtp\_tunnel, IP 10.31.1.56

Jan 30 12:17:09: AAA/AUTHEN: free\_user (0x278B90) user='rtp.cisco.com' ruser=''

port='Async1' rem\_addr='' authen\_type=NONE service=LOGIN priv=0

Jan 30 12:17:09: As1 VPDN: Forward to address 10.31.1.56

Jan 30 12:17:09: As1 VPDN: Forwarding...

Jan 30 12:17:09: AAA: parse name=Async1 idb type=10 tty=1

Jan 30 12:17:09: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x22CDEC) user='janedoe@rtp.cisco.com' ruser=''

port='Async1' rem\_addr='async' authen\_type=CHAP

```
service=PPP priv=1
Jan 30 12:17:09: As1 VPDN: Bind interface direction=1
Jan 30 12:17:09: Tnl/C1 74/1 L2TP: Session FS enabled
Jan 30 12:17:09: Tnl/C1 74/1 L2TP: Session state change from idle to
wait-for-tunnel
Jan 30 12:17:09: As1 74/1 L2TP: Create session
Jan 30 12:17:09: Tnl 74 L2TP: SM State idle
Jan 30 12:17:09: Tnl 74 L2TP: O SCCRQ
Jan 30 12:17:09: Tnl 74 L2TP: Tunnel state change from idle to wait-ctl-reply
Jan 30 12:17:09: Tnl 74 L2TP: SM State wait-ctl-reply
Jan 30 12:17:09: As1 VPDN: janedoe@rtp.cisco.com is forwarded
Jan 30 12:17:10: Tnl 74 L2TP: I SCCRP from ABCDE
Jan 30 12:17:10: Tnl 74 L2TP: Got a challenge from remote peer, ABCDE
Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:10: AAA/AUTHEN: create_user (0x23232C) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: AAA/AUTHEN/START (1598999635): port='' list='default'
action=SENDAUTH service=PPP
Jan 30 12:17:10: AAA/AUTHEN/START (1598999635): found list default
Jan 30 12:17:10: AAA/AUTHEN (1598999635): status = UNKNOWN
Jan 30 12:17:10: AAA/AUTHEN/START (1598999635): Method=TACACS+
Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=1598999635
Jan 30 12:17:10: TAC+: ver=192 id=1598999635 received AUTHEN status = ERROR
Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:10: AAA/AUTHEN: create_user (0x232470) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: TAC+: ver=192 id=3400389836 received AUTHEN status = PASS
Jan 30 12:17:10: AAA/AUTHEN: free_user (0x232470) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: AAA/AUTHEN (1598999635): status = PASS
Jan 30 12:17:10: AAA/AUTHEN: free_user (0x23232C) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: Tnl 74 L2TP: Got a response from remote peer, ABCDE
Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:10: AAA/AUTHEN: create_user (0x22FBA4) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): port='' list='default'
action=SENDAUTH service=PPP
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): found list default
Jan 30 12:17:10: AAA/AUTHEN (2964849625): status = UNKNOWN
Jan 30 12:17:10: AAA/AUTHEN/START (2964849625): Method=TACACS+
Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=2964849625
20:03:20: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1,
changed state to up
Jan 30 12:17:11: TAC+: ver=192 id=2964849625 received AUTHEN status = ERROR
Jan 30 12:17:11: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:11: AAA/AUTHEN: create_user (0x22FC8C) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: As1 74/1 L2TP: Discarding data packet because tunnel
is not open
Jan 30 12:17:11: As1 74/1 L2TP: Discarding data packet because tunnel
is not open
Jan 30 12:17:11: TAC+: ver=192 id=1474818051 received AUTHEN status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x22FC8C) user='rtp_tunnel'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: AAA/AUTHEN (2964849625): status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x22FBA4) user='rtp_tunnel'
```



```
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: Tnl 74 L2TP: Tunnel Authentication success
Jan 30 12:17:11: Tnl 74 L2TP: Tunnel state change from wait-ctl-reply to
established
Jan 30 12:17:11: Tnl 74 L2TP: O SCCCN to ABCDE tnlid 56
Jan 30 12:17:11: Tnl 74 L2TP: SM State established
Jan 30 12:17:11: As1 74/1 L2TP: O ICRQ to ABCDE 56/0
Jan 30 12:17:11: As1 74/1 L2TP: Session state change from wait-for-tunnel
to wait-reply
Jan 30 12:17:11: Tnl 74 L2TP: Dropping old CM, Ns 0, expected 1
Jan 30 12:17:11: As1 74/1 L2TP: O ICCN to ABCDE 56/1
Jan 30 12:17:11: As1 74/1 L2TP: Session state change from wait-reply to
established
LAC#
```

## Good Debug van LS router

LNS#**show debug**

General OS:

AAA Authentication debugging is on

AAA Authorization debugging is on

AAA Accounting debugging is on

VPN:

L2X protocol events debugging is on

L2X protocol errors debugging is on

VPDN events debugging is on

VPDN errors debugging is on

VTEMPLATE:

Virtual Template debugging is on

LNS#

Jan 30 12:17:09: L2TP: I SCCRQ from rtp\_tunnel tnl 74

Jan 30 12:17:09: Tnl 56 L2TP: New tunnel created for remote  
rtp\_tunnel, address 10.31.1.144

Jan 30 12:17:09: Tnl 56 L2TP: Got a challenge in SCCRQ, rtp\_tunnel

Jan 30 12:17:09: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x21F6D0) user='ABCDE'

ruser='' port=''

rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): port='' list='default'  
action=SENDAUTH service=PPP

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): found list default

Jan 30 12:17:09: AAA/AUTHEN (3194595626): status = UNKNOWN

Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): Method=TACACS+

Jan 30 12:17:09: TAC+: send AUTHEN/START packet ver=193 id=3194595626

Jan 30 12:17:09: TAC+: ver=192 id=3194595626 received AUTHEN status = ERROR

Jan 30 12:17:09: AAA: parse name= idb type=-1 tty=-1

Jan 30 12:17:09: AAA/AUTHEN: create\_user (0x2281AC) user='ABCDE'

ruser='' port=''

rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: TAC+: ver=192 id=3639011179 received AUTHEN status = PASS

Jan 30 12:17:09: AAA/AUTHEN: free\_user (0x2281AC) user='ABCDE' ruser='' port=''

rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: AAA/AUTHEN (3194595626): status = PASS

Jan 30 12:17:09: AAA/AUTHEN: free\_user (0x21F6D0) user='ABCDE' ruser='' port=''

rem\_addr='' authen\_type=CHAP service=PPP priv=1

Jan 30 12:17:09: Tnl 56 L2TP: O SCCRP to rtp\_tunnel tnlid 74

Jan 30 12:17:09: Tnl 56 L2TP: Tunnel state change from idle to

wait-ctl-reply

Jan 30 12:17:10: Tnl 56 L2TP: O Resend SCCRP, flg TLF, ver 2, len 152,  
tnl 74, cl 0, ns 0, nr 1

Jan 30 12:17:10: Tnl 56 L2TP: I SCCCN from rtp\_tunnel tnl 74

Jan 30 12:17:10: Tnl 56 L2TP: Got a Challenge Response in SCCCN from rtp\_tunnel

```
Jan 30 12:17:10: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:10: AAA/AUTHEN: create_user (0x227F3C) user='ABCDE'
ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:10: AAA/AUTHEN/STARTTranslating "rtp.cisco.com"
(4117701992): port='' list='default' action=SENDAUTH service=PPP
Jan 30 12:17:10: AAA/AUTHEN/START (4117701992): found list default
Jan 30 12:17:10: AAA/AUTHEN (4117701992): status = UNKNOWN
Jan 30 12:17:10: AAA/AUTHEN/START (4117701992): Method=TACACS+
Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=4117701992
Jan 30 12:17:11: TAC+: ver=192 id=4117701992 received AUTHEN status = ERROR
Jan 30 12:17:11: AAA: parse name= idb type=-1 tty=-1
Jan 30 12:17:11: AAA/AUTHEN: create_user (0x228E68) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: TAC+: ver=192 id=2827432721 received AUTHEN status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x228E68) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: AAA/AUTHEN (4117701992): status = PASS
Jan 30 12:17:11: AAA/AUTHEN: free_user (0x227F3C) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
Jan 30 12:17:11: Tnl 56 L2TP: Tunnel Authentication success
Jan 30 12:17:11: Tnl 56 L2TP: Tunnel state change from wait-ctl-reply
to established
Jan 30 12:17:11: Tnl 56 L2TP: SM State established
Jan 30 12:17:11: Tnl 56 L2TP: I ICRQ from rtp_tunnel tnl 74
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session FS enabled
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session state change from idle to
wait-for-tunnel
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: New session created
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: O ICRP to rtp_tunnel 74/1
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session state change from wait-for-tunnel
to wait-connect
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: I ICCN from rtp_tunnel tnl 74, cl 1
Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session state change from wait-connect
to established
Jan 30 12:17:11: Vi1 VTEMPLATE: Reuse Vi1, recycle queue size 0
Jan 30 12:17:11: Vi1 VTEMPLATE: Hardware address 00e0.1e68.942c
Jan 30 12:17:11: Vi1 VPDN: Virtual interface created for janedoe@rtp.cisco.com
Jan 30 12:17:11: Vi1 VPDN: Set to Async interface
Jan 30 12:17:11: Vi1 VPDN: Clone from Vtemplate 1 filterPPP=0 blocking
Jan 30 12:17:11: Vi1 VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate
Jan 30 12:17:11: Vi1 VTEMPLATE: ***** CLONE VACCESS1 *****
Jan 30 12:17:11: Vi1 VTEMPLATE: Clone from Virtual-Templatel
interface Virtual-Access1
default ip address
no ip address
encap ppp
ip unnumbered Ethernet0
peer default ip address pool default
ppp authentication chap
ip unnum ethernet0
peer def ip address pool default
ppp authen chap
end

Jan 30 12:17:12: janedoe@rtp.cisco.com 56/1 L2TP: Session with no hwidb
20:12:14: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up
Jan 30 12:17:13: Vi1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
Jan 30 12:17:13: Vi1 VPDN: Bind interface direction=2
Jan 30 12:17:13: Vi1 VPDN: PPP LCP accepted rcv CONFACK
Jan 30 12:17:13: Vi1 VPDN: PPP LCP accepted sent CONFACK
Jan 30 12:17:13: Vi1 L2X: Discarding packet because of no mid/session
Jan 30 12:17:13: AAA: parse name=Virtual-Access1 idb type=21 tty=-1
Jan 30 12:17:13: AAA: name=Virtual-Access1 flags=0x11 type=5 shelf=0 slot=0
```

```
adapter=0 port=1 channel=0
Jan 30 12:17:13: AAA/AUTHEN: create_user (0x1F5100) user='janedoe@rtp.cisco.com'
ruser='' port='Virtual-Access1' rem_addr='' authn_type=CHAP
service=PPP priv=1
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): port='Virtual-Access1' list=''
action=LOGIN service=PPP
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): using "default" list
Jan 30 12:17:13: AAA/AUTHEN (562517969): status = UNKNOWN
Jan 30 12:17:13: AAA/AUTHEN/START (562517969): Method=TACACS+
Jan 30 12:17:13: TAC+: send AUTHEN/START packet ver=193 id=562517969
Jan 30 12:17:14: TAC+: ver=192 id=562517969 received AUTHEN status = GETPASS
Jan 30 12:17:14: AAA: parse name=Virtual-Access1 idb type=-1 tty=-1
Jan 30 12:17:14: AAA: name=Virtual-Access1 flags=0x11 type=6 shelf=0 slot=0
adapter=0 port=1 channel=0
Jan 30 12:17:14: AAA/AUTHEN: create_user (0x1F5270) user='janedoe@rtp.cisco.com'
ruser='' port='Virtual-Access1' rem_addr='' authn_type=CHAP
service=PPP priv=1
Jan 30 12:17:14: TAC+: ver=192 id=2384902384 received AUTHEN status = PASS
Jan 30 12:17:14: AAA/AUTHEN: free_user (0x1F5270) user='janedoe@rtp.cisco.com'
ruser='' port='Virtual-Access1' rem_addr='' authn_type=CHAP
service=PPP priv=1
Jan 30 12:17:14: AAA/AUTHEN (562517969): status = PASS
Jan 30 12:17:14: Vi1 AAA/AUTHOR/LCP: Authorize LCP
Jan 30 12:17:14: AAA/AUTHOR/LCP Vi1 (413543389): Port='Virtual-Access1'
list='' service=NET
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) user='janedoe@rtp.cisco.com'
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) send AV service=ppp
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) send AV protocol=lcp
Jan 30 12:17:14: AAA/AUTHOR/LCP (413543389) found list "default"
Jan 30 12:17:14: AAA/AUTHOR/LCP: Vi1 (413543389) Method=TACACS+
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): user=janedoe@rtp.cisco.com
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): send AV service=ppp
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (413543389): send AV protocol=lcp
Jan 30 12:17:14: TAC+: (413543389): received author response status = PASS_ADD
Jan 30 12:17:14: AAA/AUTHOR (413543389): Post authorization status = PASS_ADD
Jan 30 12:17:14: AAA/ACCT/NET/START User janedoe@rtp.cisco.com,
Port Virtual-Access1, List ""
Jan 30 12:17:14: AAA/ACCT/NET: Found list "default"
Jan 30 12:17:14: Vi1 AAA/AUTHOR/FSM: (0): Can we start IPCP?
Jan 30 12:17:14: AAA/AUTHOR/FSM Vi1 (1358526470): Port='Virtual-Access1'
list='' service=NET
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) user='janedoe@rtp.cisco.com'
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) send AV service=ppp
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) send AV protocol=ip
Jan 30 12:17:14: AAA/AUTHOR/FSM (1358526470) found list "default"
Jan 30 12:17:14: AAA/AUTHOR/FSM: Vi1 (1358526470) Method=TACACS+
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): user=janedoe@rtp.cisco.com
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): send AV service=ppp
Jan 30 12:17:14: AAA/AUTHOR/TAC+: (1358526470): send AV protocol=ip
Jan 30 12:17:14: TAC+: (1358526470): received author response status = PASS_ADD
Jan 30 12:17:14: AAA/AUTHOR (1358526470): Post authorization status = PASS_ADD
Jan 30 12:17:14: Vi1 AAA/AUTHOR/FSM: We can start IPCP
Jan 30 12:17:14: TAC+: (1442592025): received acct response status = UNKNOWN
20:12:16: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to up
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.6.1.1
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
```

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Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.6.1.1
Jan 30 12:17:16: Vi1 AAA/AUTHOR/IPCP: Start. Her address 10.6.1.1, we want 10.6.1.1
Jan 30 12:17:16: AAA/AUTHOR/IPCP Vi1 (3572380713): Port='Virtual-Access1'
list='' service=NET
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) user='janedoe@rtp.cisco.com'
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV service=ppp
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV protocol=ip
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) send AV addr*10.6.1.1
Jan 30 12:17:16: AAA/AUTHOR/IPCP (3572380713) found list "default"
Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vi1 (3572380713) Method=TACACS+
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): user=janedoe@rtp.cisco.com
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV service=ppp
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV protocol=ip
Jan 30 12:17:16: AAA/AUTHOR/TAC+: (3572380713): send AV addr*10.6.1.1
Jan 30 12:17:17: TAC+: (3572380713): received author response status = PASS_ADD
Jan 30 12:17:17: AAA/AUTHOR (3572380713): Post authorization status = PASS_ADD
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV service=ppp
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV protocol=ip
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Processing AV addr*10.6.1.1
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Authorization succeeded
Jan 30 12:17:17: Vi1 AAA/AUTHOR/IPCP: Done. Her address 10.6.1.1, we want 10.6.1.1
LNS#
```

## [Gerelateerde informatie](#)

- [Cisco Secure UNIX-ondersteuningspagina](#)
- [Ondersteuningspagina voor TACACS/TACACS+](#)
- [TACACS+ in Cisco IOS-documentatie](#)
- [Cisco Secure ACS voor Windows-ondersteuningspagina](#)
- [Technische ondersteuning - Cisco-systemen](#)