

Come configurare l'autenticazione del protocollo del tunnel di layer 2 con TACACS+

Sommario

[Introduzione](#)

[Prerequisiti](#)

[Requisiti](#)

[Componenti usati](#)

[Convenzioni](#)

[Configurazione](#)

[Esempio di rete](#)

[Configurazioni server TACACS+](#)

[Configurazioni router](#)

[Verifica](#)

[Mostra Output Comando Da Entrambi I Router](#)

[Mostra output versione da entrambi i router](#)

[Problemi che possono verificarsi - Debug non corretto da LAC](#)

[Problemi che possono verificarsi - Debug non corretto da LNS](#)

[Record contabili LNS](#)

[Risoluzione dei problemi](#)

[Comandi per la risoluzione dei problemi](#)

[Output di debug](#)

[Informazioni correlate](#)

[Introduzione](#)

In questo documento viene descritto come configurare il protocollo L2TP (Layer 2 Tunnel Protocol) con TACACS+. Include configurazioni di esempio per i server L2TP Access Concentrator (LAC) TACACS+, I server L2TP Network Server (LNS) TACACS+ e i router.

[Prerequisiti](#)

[Requisiti](#)

Nessun requisito specifico previsto per questo documento.

[Componenti usati](#)

Le informazioni fornite in questo documento si basano sulle seguenti versioni software e hardware:

- Due router Cisco 2511
- Software Cisco IOS® versione 12.0(2).T
- Cisco Secure UNIX, Cisco Secure Windows o TACACS+ Freeware

Le informazioni discusse in questo documento fanno riferimento a dispositivi usati in uno specifico ambiente di emulazione. Su tutti i dispositivi menzionati nel documento la configurazione è stata ripristinata ai valori predefiniti. Se la rete è operativa, valutare attentamente eventuali conseguenze derivanti dall'uso dei comandi.

Convenzioni

Per ulteriori informazioni sulle convenzioni usate, consultare il documento [Cisco sulle convenzioni nei suggerimenti tecnici](#).

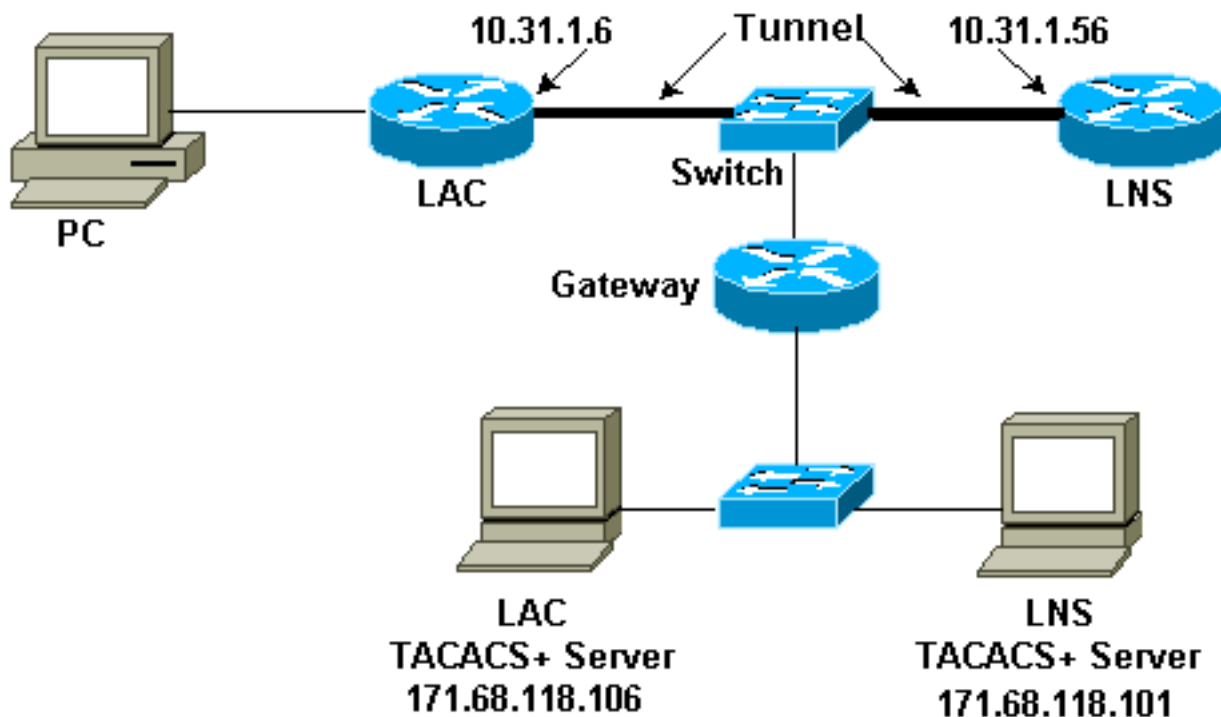
Configurazione

In questa sezione vengono presentate le informazioni necessarie per configurare le funzionalità descritte più avanti nel documento.

Nota: per ulteriori informazioni sui comandi menzionati in questo documento, usare lo [strumento di ricerca dei comandi](#) (solo utenti [registrati](#)).

Esempio di rete

Nel documento viene usata l'impostazione di rete mostrata nel diagramma.



Configurazioni server TACACS+

Configurazione LAC - 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 {
}
}

}

```

[Configurazione LNS - 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 {
}
}

}

```

[Configurazione LAC - Cisco Secure Windows](#)

Completare la procedura seguente per configurare un LAC su un sistema Cisco Secure Windows:

1. Configurare l'utente rtp_tunnel come utente PPP normale (password e/o password CHAP nella configurazione utente).
2. Inserire l'utente in group_1 e verificare il servizio **PPP/IP**. Selezionare **PPP/LCP** se la casella è visualizzata.
3. Configurare l'utente rtp.cisco.com. La password può essere ignorata.
4. Se alcune opzioni non sono visualizzate in Impostazioni gruppo, passare a **Configurazione**

interfaccia e selezionare le caselle per visualizzarle.

5. Inserire l'utente in group_2 e verificare il servizio **PPP/VPDN**. L'ID del tunnel è **rtp_tunnel**, l'elenco degli indirizzi IP è **10.31.1.56** e nella casella rettangolare degli attributi personalizzati sottostante digitare **tunnel-type=l2tp**.

Configurazione LNS - Cisco Secure Windows

Completare la procedura seguente per configurare il protocollo LNS per Cisco Secure Windows:

1. Impostare gli utenti 'ABCDE' e 'janedoe@rtp.cisco.com' come normali utenti PPP (password e/o password CHAP nella configurazione utente).
2. Inserire gli utenti in group_3 e verificare il servizio **PPP/IP**. Selezionare **PPP/LCP** se la casella è visualizzata.

Configurazione freeware LAC TACACS+

```
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
}
}
```

Configurazione LNS TACACS+ Freeware

```
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
}
}
```

Configurazioni router

Configurazione router LAC
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
```

Configurazione router LNS

```
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
```

Verifica

Mostra Output Comando Da Entrambi I Router

Le informazioni contenute in questa sezione permettono di verificare che la configurazione funzioni correttamente.

Alcuni comandi **show** sono supportati dallo [strumento Output Interpreter \(solo utenti registrati\)](#); lo strumento permette di visualizzare un'analisi dell'output del comando **show**.

Router LAC

```
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@rtp.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
```

[Router LNS](#)

```
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
```

[Mostra output versione da entrambi i router](#)

```
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
```

[Problemi che possono verificarsi - Debug non corretto da LAC](#)

Questo output di debug include commenti sul punto in cui la sequenza si arresta quando il router non è configurato correttamente.

```
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
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='' 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 !--- 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#

[Problemi che possono verificarsi - Debug non corretto da LNS](#)

Questo output di debug include commenti sul punto in cui la sequenza si arresta quando il router non è configurato correttamente.

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/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='' 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#

[Record contabili LNS](#)

Si trova sul server LNS TACACS+.

```
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
```

[Risoluzione dei problemi](#)

Le informazioni contenute in questa sezione permettono di risolvere i problemi relativi alla configurazione.

[Comandi per la risoluzione dei problemi](#)

Nota: prima di usare i comandi di **debug**, consultare le [informazioni importanti sui comandi di debug](#).

- **debug aaa authentication:** visualizza le informazioni sull'autenticazione AAA/TACACS+.
- **debug aaa authorization:** visualizza le informazioni sull'autorizzazione AAA/TACACS+.
- **debug aaa accounting:** visualizza le informazioni sugli eventi responsabili non appena si verificano. Le informazioni visualizzate da questo comando sono indipendenti dal protocollo di accounting utilizzato per trasferire le informazioni di accounting a un server.
- **debug tacacs+:** visualizza informazioni di debug dettagliate associate a TACACS+.
- **debug vtemplate:** visualizza le informazioni di duplicazione per un'interfaccia di accesso virtuale dal momento in cui viene duplicata da un modello virtuale al momento in cui l'interfaccia di accesso virtuale diventa inattiva al termine della chiamata.
- **debug vpdn error:** visualizza gli errori che impediscono di stabilire un tunnel PPP o gli errori che causano la chiusura di un tunnel stabilito.
- **debug vpdn events:** visualizza i messaggi relativi agli eventi che fanno parte della normale

creazione o chiusura del tunnel PPP.

- **debug vpdn l2x-errors**: visualizza gli errori del protocollo di layer 2 che impediscono la definizione del layer 2 o il normale funzionamento dello stesso.
- **debug vpdn l2x-events**: visualizza i messaggi relativi agli eventi che fanno parte della normale definizione del tunnel PPP o del processo di arresto per il layer 2.

Output di debug

Debug corretto dal router LAC

```
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#
```

[Debug corretto dal router LNS](#)

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

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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
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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
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
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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#
```

[Informazioni correlate](#)

- [Pagina di supporto per Cisco Secure UNIX](#)
- [Pagina di supporto TACACS/TACACS+](#)
- [TACACS+ nella documentazione di Cisco IOS](#)
- [Pagina di supporto di Cisco Secure ACS per Windows](#)
- [Supporto tecnico – Cisco Systems](#)