

# 如何配置 TACACS+ 的第二层隧道协议认证

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## 简介

本文档介绍如何使用 TACACS+ 配置第二层隧道协议 (L2TP)。其中包括适用于 L2TP 接入集中器 (LAC) TACACS+ 服务器、L2TP 网络服务器 (LNS) TACACS+ 服务器和路由器的配置示例。

## 先决条件

### 要求

本文档没有任何特定的要求。

### 使用的组件

本文档中的信息基于以下软件和硬件版本：

- 两个 Cisco 2511 路由器
- Cisco IOS® 软件版本 12.0(2).T
- Cisco Secure UNIX、Cisco Secure Windows 或 TACACS+ 免费软件

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

## [规则](#)

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

## [配置](#)

本部分提供有关如何配置本文档所述功能的信息。

**注意：**要查找本文档所用命令的其他信息，请使用[命令查找工具](#)（[仅限注册用户](#)）。

## [网络图](#)

本文档使用此图所示的网络设置。

## [TACACS+ 服务器配置](#)

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

完成下列步骤以配置 Cisco Secure Windows 上的 LAC：

1. 将用户 rtp\_tunnel 设置为普通 PPP 用户（“User Setup”中的口令和/或 CHAP 口令）。
2. 将用户放在 group\_1 中，并选中 **PPP/IP** 服务。如果显示该框，请选中 **PPP/LCP**。
3. 设置用户 rtp.cisco.com。口令为“do not care”。
4. 如果某些选项没有在“Group Settings”中显示，请转到 **Interface Configuration** 并选中相应的框使其显示。
5. 将用户放在 group\_2 中，并选中 **PPP/VPDN** 服务。tunnel-id 为 rtp\_tunnel，ip address list 为 **10.31.1.56**，在下方的长方形自定义属性框中键入 **tunnel type=l2tp**。

## [LNS 配置 - Cisco Secure Windows](#)

完成下列步骤以配置 Cisco Secure Windows 上的 LNS：

1. 将用户“ABCDE”和“janedoe@rtp.cisco.com”设置为普通 PPP 用户（“User Setup”中的口令和/或 CHAP 口令）。
2. 将用户放在 group\_3 中，并选中 **PPP/IP** 服务。如果显示该框，请选中 **PPP/LCP**。

## [LAC TACACS+ 免费软件配置](#)

```

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
}
}

```

## [LAC TACACS+ 免费软件配置](#)

```

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
}
}
```

## 路由器配置

### LAC 路由器配置

```
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./Qt0lC1
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 路由器配置**

```
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.krpZl
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
```

## 验证

### 两个路由器的 show 命令输出

本部分所提供的信息可用于确认您的配置是否正常工作。

[命令输出解释程序工具](#) ( [仅限注册用户](#) ) 支持某些 **show** 命令，使用此工具可以查看对 show 命令输出的分析。

### LAC 路由器

```
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
```

## [LNS 路由器](#)

```
LNS#show vpdn session L2TP Session Information (Total tunnels=1 sessions=1) LocID RemID TunID
Intf Username State Last Chg 1 1 58 Vil 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
```

## [两个路由器的 show version 输出](#)

```
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
```

## [可能的出错原因 – LAC 的错误调试](#)

此调试输出包括有关路由器配置错误时序列在何处停止的注释。

```
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 !--- 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='' authen_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'
authen_type=CHAP service=PPP priv=1 Jan 30 12:17:09: As1 VPDN: Bind interface direction=1 Jan 30
12:17:09: Tnl/Cl 74/1 L2TP: Session FS enabled Jan 30 12:17:09: Tnl/Cl 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 !--- 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#

```

## 可能的出错原因 - LNS 的错误调试

此调试输出包括有关路由器配置错误时序列在何处停止的注释。

```

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: Vil VTEMPLATE: Reuse Vil, recycle queue size 0 Jan 30 12:17:11: Vil VTEMPLATE: Hardware address 00e0.1e68.942c Jan 30 12:17:11: Vil VPDN: Virtual interface created for janedoe@rtp.cisco.com Jan 30 12:17:11: Vil VPDN: Set to Async interface Jan 30 12:17:11: Vil VPDN: Clone from Vtemplate 1 filterPPP=0 blocking Jan 30 12:17:11: Vil VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate Jan 30 12:17:11: Vil VTEMPLATE: \*\*\*\*\* CLONE VACCESS1 \*\*\*\*\* Jan 30 12:17:11: Vil 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: Vil AAA/AUTHOR/FSM: (0): LCP succeeds trivially Jan 30 12:17:13: Vil VPDN: Bind interface direction=2 Jan 30 12:17:13: Vil VPDN: PPP LCP accepted rcv CONFACK Jan 30 12:17:13: Vil VPDN: PPP LCP accepted sent CONFACK Jan 30 12:17:13: Vil 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 Vii user janedoe@rtp.cisco.com; Authentication failure Jan 30 12:17:14: AAA/AUTHEN (562517969): status = PASS Jan 30 12:17:14: Vii AAA/AUTHOR/LCP: Authorize LCP Jan 30 12:17:14: AAA/AUTHOR/LCP Vii (413543389): Port='Virtual-Access1' list='' service=NET Jan 30 12:17:14: AAA/AUTHOR/LCP: Vii (413543389) user='janedoe@rtp.cisco.com' Jan 30 12:17:14: AAA/AUTHOR/LCP: Vii (413543389) send AV service=ppp Jan 30 12:17:14: AAA/AUTHOR/LCP: Vii (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: Vii (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: Vii AAA/AUTHOR/FSM: (0): Can we start IPCP? Jan 30 12:17:14: AAA/AUTHOR/FSM Vii (1358526470): Port='Virtual-Access1' list='' service=NET Jan 30 12:17:14: AAA/AUTHOR/FSM: Vii (1358526470) user='janedoe@rtp.cisco.com' Jan 30 12:17:14: AAA/AUTHOR/FSM: Vii (1358526470) send AV service=ppp Jan 30 12:17:14: AAA/AUTHOR/FSM: Vii (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: Vii (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: Vii 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: Vii AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0 Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Processing AV service=ppp Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Processing AV protocol=ip Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Authorization succeeded Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0 Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 10.6.1.1 Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Processing AV service=ppp Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Processing AV protocol=ip Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Authorization succeeded Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 10.6.1.1 Jan 30 12:17:16: Vii AAA/AUTHOR/IPCP: Start. Her address 10.6.1.1, we want 10.6.1.1 Jan 30 12:17:16: AAA/AUTHOR/IPCP Vii (3572380713): Port='Virtual-Access1' list='' service=NET Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vii (3572380713) user='janedoe@rtp.cisco.com' Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vii (3572380713) send AV service=ppp Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vii (3572380713) send AV protocol=ip Jan 30 12:17:16: AAA/AUTHOR/IPCP: Vii (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: Vii (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: Vii AAA/AUTHOR/IPCP: Processing AV service=ppp Jan 30 12:17:17: Vii AAA/AUTHOR/IPCP: Processing AV protocol=ip Jan 30 12:17:17: Vii AAA/AUTHOR/IPCP: Processing AV addr\*10.6.1.1 Jan 30 12:17:17: Vii AAA/AUTHOR/IPCP: Authorization succeeded Jan 30 12:17:17: Vii AAA/AUTHOR/IPCP: Done. Her address 10.6.1.1, we want 10.6.1.1 LNS#

## [LNS计费记录](#)

位于 LNS TACACS+ 服务器上。

```
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
```

## 故障排除

本部分提供的信息可用于对配置进行故障排除。

### 故障排除命令

**注意：** 在发出 `debug` 命令之前，请参阅[有关 Debug 命令的重要信息](#)。

- `debug aaa authentication` - 显示 AAA/TACACS+ 身份验证的信息。
- `debug aaa authorization` - 显示有关 AAA/TACACS+ 授权的信息。
- `debug aaa accounting` - 在可记帐事件出现时显示其相关信息。使用此命令显示的信息与用于向服务器传输记帐信息的记帐协议无关。
- `debug tacacs+` - 显示与TACACS+相关的详细调试信息。
- `debug vtemplate` - 显示从虚拟模板克隆虚拟访问接口时到虚拟访问接口因呼叫结束而关闭时虚拟访问接口的克隆信息。
- `debug vpdn error` - 显示防止一个PPP隧道被设立造成一个已建隧道被关闭的错误。
- `debug vpdn events` - 显示关于正常PPP隧道建立或关闭的一部分事件的消息。
- `debug vpdn l2x-errors` - 显示妨碍建立第二层或妨碍其正常操作的第二层协议错误。
- `debug vpdn l2x-events` - 显示第二层的正常 PPP 隧道建立或关闭过程中的事件相关消息。

### 调试输出

#### LAC 路由器的正确调试

```
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/Cl 74/1 L2TP: Session FS enabled Jan 30 12:17:09: Tnl/Cl 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 SCCRQ 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#
```

## LNS 路由器的正常调试

```
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 SCCR 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 SCCR, 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: Vil VTEMPLATE: Reuse Vil, recycle queue size 0 Jan 30 12:17:11: Vil VTEMPLATE: Hardware address 00e0.1e68.942c Jan 30 12:17:11: Vil VPDN: Virtual interface created for janedoe@rtp.cisco.com Jan 30 12:17:11: Vil VPDN: Set to Async interface Jan 30 12:17:11: Vil VPDN: Clone from Vtemplate 1 filterPPP=0 blocking Jan 30 12:17:11: Vil VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate Jan 30 12:17:11: Vil VTEMPLATE: \*\*\*\*\* CLONE VACCESS1 \*\*\*\*\* Jan 30 12:17:11: Vil VTEMPLATE: Clone from Virtual-Templatel1 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: Vil AAA/AUTHOR/FSM: (0): LCP succeeds trivially Jan 30 12:17:13: Vil VPDN: Bind interface direction=2 Jan 30 12:17:13: Vil VPDN: PPP LCP accepted rcv CONFACK Jan 30 12:17:13: Vil VPDN: PPP LCP accepted sent CONFACK Jan 30 12:17:13: Vil 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 Jan 30 12:17:14: AAA/AUTHEN (562517969): status = PASS Jan 30 12:17:14: Vil AAA/AUTHOR/LCP: Authorize LCP Jan 30 12:17:14: AAA/AUTHOR/LCP Vil (413543389): Port='Virtual-Access1' list='' service=NET Jan 30 12:17:14: AAA/AUTHOR/LCP: Vil (413543389) user='janedoe@rtp.cisco.com' Jan 30 12:17:14: AAA/AUTHOR/LCP: Vil (413543389) send AV service=ppp Jan 30 12:17:14: AAA/AUTHOR/LCP: Vil (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: Vil (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

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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#
```

## 相关信息

- [Cisco Secure UNIX 支持页](#)
- [TACACS/TACACS+支持页面](#)
- [TACACS+ in Cisco IOS 文档](#)
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