

# TACACS+ 使用によるレイヤ 2 トンネル プロトコル認証の設定

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## 概要

このドキュメントでは、TACACS+ 使用によるレイヤ 2 トンネル プロトコル ( L2TP ) の設定方法について説明します。これは L2TP アクセス コンセントレータ ( LAC ) TACACS+ サーバ、L2TP ネットワーク サーバ ( LNS ) TACACS+ サーバ、およびルータの設定例を説明します。

## 前提条件

### 要件

このドキュメントに関する固有の要件はありません。

### 使用するコンポーネント

このドキュメントの情報は、次のソフトウェアとハードウェアのバージョンに基づくものです。

- Cisco 2511 ルータ 2 台
- Cisco IOS(R) ソフトウェア リリース 12.0 ( 2 ) .T
- Cisco Secure UNIX、Cisco Secure Windows、または TACACS+ フリーウェア

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されたものです。このドキュメントで使用するすべてのデバイスは、クリアな ( デフォルト ) 設定で作業を開始しています。ネットワークが稼働中の場合は、コマンドが及ぼす潜在的な影響を十分に理解しておく必要があります。

## [表記法](#)

ドキュメント表記の詳細は、『[シスコテクニカルティップスの表記法](#)』を参照してください。

## [設定](#)

この項では、このドキュメントで説明する機能の設定に必要な情報を提供します。

注: このドキュメントで使用されているコマンドの詳細を調べるには、[Command Lookup Tool](#) ( [登録ユーザ専用](#) ) を使用してください。

## [ネットワーク図](#)

このドキュメントでは、次の図で示されるネットワーク構成を使用しています。

## [TACACS+ サーバ設定](#)

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

の LAC を設定するためにこれらのステップを Cisco Secure Windows 完了して下さい:

1. 標準 PPP ユーザとしてユーザ rtp\_tunnel を設定して下さい ( ユーザセットアップのパスワードや CHAP パスワード )。
2. ユーザを group\_1 に置き、サービス PPP/IP をチェックして下さい。 そのボックスが表示する場合 PPP/LCP をチェックして下さい。
3. ユーザを設定して下さい rtp.cisco.com。 パスワードはです「気遣いません」。
4. いくつかのオプションがグループ設定で表示する場合、インターフェイスコンフィギュレーションに行き、それらを現われるために得るようにボックスを選択して下さい。
5. ユーザを group\_2 に置き、サービス PPP/VPDN をチェックして下さい。 tunnel-id は rtp\_tunnel です、IPアドレスリストは長方形カスタム属性 ボックスの下に 10.31.1.56、型 tunnel-type=l2tp であり。

## [LNS 設定- Cisco Secure Windows](#)

Cisco Secure Windows のための LNS を設定するためにこれらのステップを完了して下さい:

1. ユーザの ABCDE」および「正常な PPP ユーザとして janedoe@rtp.cisco.com を」設定して下さい ( ユーザセットアップのパスワードや CHAP パスワード )。
2. ユーザを group\_3 に置き、サービス PPP/IP をチェックして下さい。 そのボックスが表示する場合 PPP/LCP をチェックして下さい。

## [LAC TACACS+ フリーウェア の 設定](#)

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

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

## LNS TACACS+ フリーウェア の 設定

```
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
}
}
```

## ルータの設定

### LAC ルータの設定

```
version 12.0
service timestamps debug datetime
service timestamps log uptime
no service password-encryption
!
hostname LAC
!
aaa new-model
aaa authentication ppp default if-needed tacacs+
aaa authorization network default tacacs+
aaa accounting network default start-stop tacacs+
enable secret level 7 5 $1$Dj3K$9jkyuJR6fJV2JO./Qt01C1
enable password ww
!
username john password 0 doe
ip subnet-zero
no ip domain-lookup
!
vpdn enable
!
vpdn search-order domain
!
interface Loopback0
no ip address
no ip directed-broadcast
!
interface Ethernet0
ip address 10.31.1.144 255.255.255.0
no ip directed-broadcast
!
interface Serial0
no ip address
no ip directed-broadcast
no ip mroute-cache
shutdown
```

```

!
interface Serial1
no ip address
no ip directed-broadcast
shutdown
!
interface Async1
ip unnumbered Ethernet0
no ip directed-broadcast
ip tcp header-compression passive
encapsulation ppp
async mode dedicated
peer default ip address pool default
ppp authentication chap
!
ip local pool default 10.5.5.5 10.5.5.50
ip classless
ip route 0.0.0.0 0.0.0.0 10.31.1.1
!
tacacs-server host 171.68.118.106
tacacs-server key cisco
!
line con 0
transport input none
line 1
exec-timeout 0 0
autoselect during-login
autoselect ppp
modem Dialin
transport preferred none
transport output none
speed 38400
flowcontrol hardware
line 2 16
modem InOut
transport input all
speed 38400
flowcontrol hardware
line aux 0
line vty 0 4
password WW
!
end

```

## LNS ルータの設定

```

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
```

**確認**

## 両方のルータからのShowコマンド出力

このセクションでは、設定が正常に動作しているかどうかを確認する際に役立つ情報を提供しています。

特定の **show** コマンドは、[Output Interpreter Tool](#) ( [登録ユーザ専用](#) ) によってサポートされています。このツールを使用すると、**show** コマンド出力の分析を表示できます。

### LAC ルータ

```
LAC#show vpdn session L2TP Session Information (Total tunnels=1 sessions=1) LocID RemID TunID
Intf Username State Last Chg 1 1 76 Asl 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 ルータ

```
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
```

## 両方のルータからのバージョン出力の表示

```
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-1.120-2.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
```

## 考えられる問題 : LAC からの不適切なデバッグ

このデバッグ 出力はルータが不適切に設定されているとのシーケンスが停止するコメントが含まれています。

```
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: Asl AAA/AUTHOR/FSM: (0): LCP succeeds trivially
20:03:18: %LINK-3-UPDOWN: Interface Async1, changed state to up Jan 30 12:17:09: Asl 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='' 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#

**不具合の原因 : LNS からの不適切なデバッグ**



このデバッグ 出力はルータが不適切に設定されているとのシーケンスが停止するコメントが含まれています。

```
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-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: 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: V11 AAA/AUTHOR/IPCP: Done. Her address 10.6.1.1, we want 10.6.1.1  
LNS#

## LNS アカウンティング レコード

これは LNS TACACS+ サーバにあります。

```
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
```

## トラブルシューティング

ここでは、設定のトラブルシューティングに役立つ情報について説明します。

### トラブルシューティングのためのコマンド

注: debug コマンドを使用する前に、『[debug コマンドに関する重要な情報](#)』を参照してください。

- **debug aaa authentication** : AAA/TACACS+ 認証に関する情報を表示します。
- **debug aaa authorization** : AAA/TACACS+ 許可に関する情報を表示します。
- **debug aaa accounting** : アカウンティング可能なイベントが発生したときのそのイベントに関する情報を表示します。このコマンドで表示される情報は、アカウンティング情報のサーバへの転送に使用されるアカウンティング プロトコルに依存しません。
- **debug tacacs+** : TACACS+ に関連する詳細なデバッグ情報を表示します。
- **debug vtemplate** : 仮想テンプレートからクローニングされた時点から、コールが終了して仮想アクセス インターフェイスがダウン状態になるまでの、仮想アクセス インターフェイスのクローニング情報を表示します。
- **debug vpdn error** : PPP トンネルの確立を阻止するエラー、または確立されたトンネルをクローズするエラーを表示します。
- **debug vpdn events** : 通常の PPP トンネル確立またはシャットダウンの一部であるイベントに関するメッセージを表示します。
- **debug vpdn l2x-errors** : レイヤ 2 の確立を阻害したり、またはその通常動作を阻害したりするレイヤ 2 プロトコルのエラーを表示します。
- **debug vpdn l2x-events** : レイヤ 2 の通常の PPP トンネル確立またはシャットダウンの一部であるイベントに関するメッセージを表示します。

## デバッグ出力

### LAC ルータからの正常なデバッグ

```
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 ルータからの正常なデバッグ

```
LNS#show debug General OS: AAA Authentication debugging is on AAA Authorization debugging is on
AAA Accounting debugging is on VPN: L2X protocol events debugging is on L2X protocol errors
debugging is on VPDN events debugging is on VPDN errors debugging is on VTEMPLATE: Virtual
Template debugging is on LNS# Jan 30 12:17:09: L2TP: I SCCRQ from rtp_tunnel tnl 74 Jan 30
12:17:09: Tnl 56 L2TP: New tunnel created for remote rtp_tunnel, address 10.31.1.144 Jan 30
12:17:09: Tnl 56 L2TP: Got a challenge in SCCRQ, rtp_tunnel Jan 30 12:17:09: AAA: parse name=
idb type=-1 tty=-1 Jan 30 12:17:09: AAA/AUTHEN: create_user (0x21F6D0) user='ABCDE' ruser=''
port='' rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:09: AAA/AUTHEN/START
(3194595626): port='' list='default' action=SENDAUTH service=PPP Jan 30 12:17:09:
AAA/AUTHEN/START (3194595626): found list default Jan 30 12:17:09: AAA/AUTHEN (3194595626):
status = UNKNOWN Jan 30 12:17:09: AAA/AUTHEN/START (3194595626): Method=TACACS+ Jan 30 12:17:09:
TAC+: send AUTHEN/START packet ver=193 id=3194595626 Jan 30 12:17:09: TAC+: ver=192
id=3194595626 received AUTHEN status = ERROR Jan 30 12:17:09: AAA: parse name= idb type=-1 tty=-
1 Jan 30 12:17:09: AAA/AUTHEN: create_user (0x2281AC) user='ABCDE' ruser='' port='' rem_addr=''
authen_type=CHAP service=PPP priv=1 Jan 30 12:17:09: TAC+: ver=192 id=3639011179 received AUTHEN
status = PASS Jan 30 12:17:09: AAA/AUTHEN: free_user (0x2281AC) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:09: AAA/AUTHEN (3194595626): status
= PASS Jan 30 12:17:09: AAA/AUTHEN: free_user (0x21F6D0) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:09: Tnl 56 L2TP: O SCCRP to
rtp_tunnel tnlid 74 Jan 30 12:17:09: Tnl 56 L2TP: Tunnel state change from idle to wait-ctl-
reply Jan 30 12:17:10: Tnl 56 L2TP: O Resend SCCRP, flg TLF, ver 2, len 152, tnl 74, cl 0, ns 0,
nr 1 Jan 30 12:17:10: Tnl 56 L2TP: I SCCCN from rtp_tunnel tnl 74 Jan 30 12:17:10: Tnl 56 L2TP:
Got a Challenge Response in SCCCN from rtp_tunnel Jan 30 12:17:10: AAA: parse name= idb type=-1
tty=-1 Jan 30 12:17:10: AAA/AUTHEN: create_user (0x227F3C) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:10: AAA/AUTHEN/STARTTranslating
"rtp.cisco.com" (4117701992): port='' list='default' action=SENDAUTH service=PPP Jan 30
12:17:10: AAA/AUTHEN/START (4117701992): found list default Jan 30 12:17:10: AAA/AUTHEN
(4117701992): status = UNKNOWN Jan 30 12:17:10: AAA/AUTHEN/START (4117701992): Method=TACACS+
Jan 30 12:17:10: TAC+: send AUTHEN/START packet ver=193 id=4117701992 Jan 30 12:17:11: TAC+:
ver=192 id=4117701992 received AUTHEN status = ERROR Jan 30 12:17:11: AAA: parse name= idb
type=-1 tty=-1 Jan 30 12:17:11: AAA/AUTHEN: create_user (0x228E68) user='ABCDE' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:11: TAC+: ver=192 id=2827432721
received AUTHEN status = PASS Jan 30 12:17:11: AAA/AUTHEN: free_user (0x228E68) user='ABCDE'
ruser='' port='' rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:11: AAA/AUTHEN
(4117701992): status = PASS Jan 30 12:17:11: AAA/AUTHEN: free_user (0x227F3C) user='ABCDE'
ruser='' port='' rem_addr='' authen_type=CHAP service=PPP priv=1 Jan 30 12:17:11: Tnl 56 L2TP:
Tunnel Authentication success Jan 30 12:17:11: Tnl 56 L2TP: Tunnel state change from wait-ctl-
reply to established Jan 30 12:17:11: Tnl 56 L2TP: SM State established Jan 30 12:17:11: Tnl 56
L2TP: I ICRQ from rtp_tunnel tnl 74 Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session FS enabled Jan 30
12:17:11: Tnl/Cl 56/1 L2TP: Session state change from idle to wait-for-tunnel Jan 30 12:17:11:
Tnl/Cl 56/1 L2TP: New session created Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: O ICRP to rtp_tunnel
74/1 Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: Session state change from wait-for-tunnel to wait-
connect Jan 30 12:17:11: Tnl/Cl 56/1 L2TP: I ICCN from rtp_tunnel tnl 74, cl 1 Jan 30 12:17:11:
Tnl/Cl 56/1 L2TP: Session state change from wait-connect to established Jan 30 12:17:11: 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: 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 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#

## 関連情報

- [Cisco Secure UNIX に関するサポート ページ](#)
- [TACACS/TACACS+ に関するサポートページ](#)
- [Cisco IOSドキュメンテーションの TACACS+](#)
- [Cisco Secure ACS for Windows に関するサポート ページ](#)
- [テクニカルサポート - Cisco Systems](#)