

為VPDN設定TACACS+驗證

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簡介

虛擬專用撥號網路(VPDN)允許專用網路撥入服務跨接至遠端訪問伺服器 (定義為L2TP訪問集中器[LAC])。當點對點通訊協定(PPP)使用者端撥入LAC時，LAC判斷其應該將該PPP作業階段轉送到該使用者端的L2TP網路伺服器(LNS)，然後由該伺服器驗證使用者並開始PPP交涉。PPP設定完成後，所有幀都通過LAC傳送到客戶端和LNS。

此組態範例允許您對虛擬私人撥號網路(VPDN)使用TACACS+驗證。LAC查詢TACACS+伺服器，確定轉發使用者的LNS，並建立適當的隧道。

有關VPDN的詳細資訊，請參閱[瞭解VPDN](#)。

必要條件

需求

本文件沒有特定需求。

採用元件

本文中的資訊係根據以下軟體和硬體版本：

- Cisco Secure ACS for UNIX 2.x.x及更高版本或TACACS+免費軟體
- Cisco IOS[®]軟體版本11.2及更新版本

本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除（預設）的組態來啟動。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

慣例

如需文件慣例的詳細資訊，請參閱[思科技術提示慣例](#)。

設定

本節提供設定本檔案中所述功能所需的資訊。

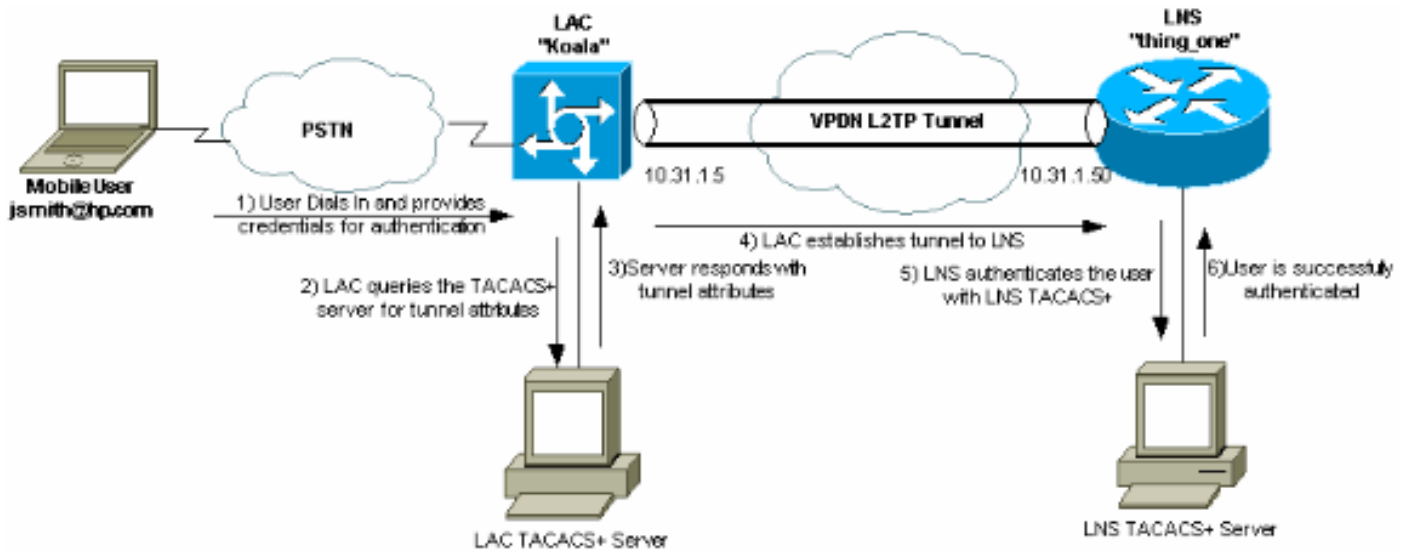
在本示例中，使用者為「jsmith@hp.com」，密碼為「test」。當「jsmith@hp.com」撥入ISP路由器時，ISP路由器會將「hp.com」使用者ID傳送到ISP TACACS+伺服器。ISP伺服器找到「hp.com」使用者ID並將其隧道ID（「isp」）、家庭網關(HGW)路由器的IP地址(10.31.1.50)、網路接入伺服器(NAS)密碼（「hello」）和網關密碼（「there」）傳送回ISP路由器。

ISP路由器發起隧道並連線到HGW路由器，後者將使用者ID "hp-gw"("there")和使用者ID "isp"("hello")的密碼轉發到HGW TACACS+伺服器。建立通道後，ISP路由器會將撥入的使用者的使用者ID（「jsmith@hp.com」）和密碼（「測試」）轉發給HGW路由器。此使用者在HGW伺服器上進行身份驗證。在本文檔的配置示例中，ISP路由器主機名為「koala」，HGW路由器主機名為「thing_one」。

注意：要查詢有關本文檔中使用的命令的其他資訊，請使用[命令查詢工具](#)([僅限註冊客戶](#))。

網路圖表

本檔案會使用下圖中所示的網路設定。



TACACS+伺服器組態

本文檔使用此處顯示的伺服器配置。

- [TACACS+免費軟體](#)
- [適用於UNIX 2.x.x的Cisco安全ACS](#)

TACACS+免費軟體

```
!--- This user is on the ISP TACACS+ server. !--- The profile includes the Tunnel ID ("isp"),
the IP address !--- of the Peer (10.31.1.50), !--- and the passwords used to authenticate the
tunnel. !--- The ISP uses these attributes to establish the tunnel. user = hp.com { service = ppp
protocol = vpdn { tunnel-id = isp ip-addresses = "10.31.1.50" nas-password = "hello" gw-password
= "there" } } !--- The next three users are on the HGW server. user = isp { chap = cleartext
"hello" service = ppp protocol = ip { default attribute = permit } } user = hp-gw { chap =
cleartext "there" service = ppp protocol = ip { default attribute = permit } } user =
jsmith@hp.com { chap = cleartext "test" service = ppp protocol = ip { default attribute = permit
} }
```

適用於UNIX 2.x.x的Cisco安全ACS

```
!--- This user is on the ISP server. # ./ViewProfile -p 9900 -u hp.com User Profile Information
user = hp.com{ profile_id = 83 profile_cycle = 1 service=ppp { protocol=vpdn { set tunnel-id=isp
set ip-addresses="10.31.1.50" set nas-password="hello" set gw-password="there" } protocol=lcp {
} } } !--- The next three users are on the HGW server. !--- The next two usernames are used to
authenticate the LAC !--- during tunnel initialization. # ./ViewProfile -p 9900 -u isp User
Profile Information user = isp{ profile_id = 84 profile_cycle = 1 password = chap "*****"
service=ppp { protocol=ip { default attribute=permit } protocol=lcp { } } } # ./ViewProfile -p
9900 -u hp-gw User Profile Information user = hp-gw{ profile_id = 82 profile_cycle = 1 password
= chap "*****" service=ppp { protocol=ip { default attribute=permit } protocol=lcp { } } } !-
-- This username is used to authenticate the end user !--- after the tunnel is established. #
./ViewProfile -p 9900 -u jsmith@hp.com User Profile Information user = jsmith@hp.com{ profile_id
= 85 profile_cycle = 1 password = chap "*****" service=ppp { protocol=ip { default
attribute=permit } protocol=lcp { } } }
```

路由器配置

本文檔使用此處顯示的配置。

- [ISP路由器](#)
- [HGW路由器](#)

ISP路由器配置

```
koala#show running config
Building configuration...

Current configuration:
!
version 11.2
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname koala
!
aaa new-model
aaa authentication ppp default tacacs+ none
aaa authorization network tacacs+ none
aaa accounting network start-stop tacacs+

enable password ww
!
```

```
!--- VPDN is enabled. vpdn enable
!
interface Ethernet0
ip address 10.31.1.5 255.255.255.0
!
interface Serial0
shutdown
!
interface Serial1
shutdown
!
interface Async1
ip unnumbered Ethernet0
encapsulation ppp
async mode dedicated
no cdp enable
ppp authentication chap
!
ip default-gateway 10.31.1.1
no ip classless
ip route 0.0.0.0 0.0.0.0 10.31.1.1
!
!--- Specify the TACACS server information on the NAS.
tacacs-server host 171.68.120.194
tacacs-server key cisco
no tacacs-server directed-request
snmp-server community public RW
snmp-server enable traps config
!
line con 0
password ww
line 1 16
password ww
autoselect ppp
modem InOut
transport input all
stopbits 1
rxspeed 115200
txspeed 115200
flowcontrol hardware
line aux 0
line vty 0 4
exec-timeout 0 0
password ww
!
end
```

HGW路由器配置

```
thing_one#show running config
Building configuration...

Current configuration:
!
version 11.2
no service password-encryption
no service udp-small-servers
no service tcp-small-servers
!
hostname thing_one
!
aaa new-model
aaa authentication ppp default tacacs+ none
```

```

aaa authorization network tacacs+ none
enable password ww
!
!--- Enable VPDN. vpdn enable
!--- Specify the remote host ("isp" on the network
access server) !--- and the local name ("hp-gw" on the
home gateway) to use to authenticate. !--- Also specify
the virtual template to use. !--- The local name and the
remote host name must match !--- the ones in the TACACS
server. vpdn incoming isp hp-gw virtual-template 1
!
interface Loopback0
shutdown
!
interface Ethernet0
ip address 10.31.1.50 255.255.255.0
!
interface Virtual-Template1
!--- Create a virtual template interface. ip unnumbered
Ethernet0
!--- Un-number the Virtual interface to an available LAN
interface. peer default ip address pool async
!--- Use the pool "async" to assign the IP address for
incoming connections. ppp authentication chap
!--- Use CHAP authentication for the incoming
connection. ! interface Serial0 shutdown ! interface
Serial1 shutdown ! ip local pool async 15.15.15.15 no ip
classless ip route 0.0.0.0 0.0.0.0 10.31.1.1 ! tacacs-
server host 171.68.118.101
no tacacs-server directed-request
tacacs-server key cisco
!--- Specify the TACACS+ server information on the NAS.
! line con 0 exec-timeout 0 0 line 1 8 line aux 0 line
vty 0 4 ! end

```

驗證

目前沒有適用於此組態的驗證程序。

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

疑難排解指令

注意：發出debug指令之前，請先參閱[有關Debug指令的重要資訊](#)。

- **debug aaa authentication** — 顯示有關身份驗證、授權和記帳(AAA)/TACACS+身份驗證的資訊。
- **debug aaa authorization** — 顯示有關AAA/TACACS+授權的資訊。
- **debug ppp negotiation** — 顯示在PPP啟動期間傳輸的PPP資料包，其中協商了PPP選項。
- **debug tacacs+** — 顯示與TACACS+關聯的詳細調試資訊。
- **debug vpdn errors** — 顯示阻止PPP隧道建立的錯誤或導致已建立的隧道關閉的錯誤。
- **debug vpdn events** — 顯示有關屬於正常PPP隧道建立或關閉部分的事件的消息。
- **debug vpdn l2f-errors** — 顯示阻止第2層建立或阻止其正常操作的第2層協定錯誤。

- **debug vpdn l2f-events** — 顯示有關屬於第2層正常PPP隧道建立或關閉的事件的消息。
- **debug vpdn l2f-packets** — 顯示有關第2層轉發協定報頭和狀態的消息。
- **debug vpdn packets** — 顯示第2層通道通訊協定(L2TP)錯誤和屬於VPDN正常通道建立或關閉一部分的事件。
- **debug vtemplate** — 顯示虛擬訪問介面的克隆資訊，從虛擬模板克隆到呼叫結束時虛擬訪問介面關閉為止。

調試輸出示例

這些調試資訊僅供參考。

- [ISP路由器正常調試](#)
- [HGW路由器正常調試](#)
- [ISP路由器上連線失敗的調試](#)
- [HGW路由器上失敗連線的調試](#)

ISP路由器正常調試

```

koala#show debug
General OS:
AAA Authentication debugging is on
AAA Authorization debugging is on
AAA Accounting debugging is on
VPN:
VPN events debugging is on
VPN errors debugging is on
koala#
%LINK-3-UPDOWN: Interface Async1, changed state to up
15:04:47: VPDN: Looking for tunnel -- hp.com --
15:04:47: AAA/AUTHEN: create_user (0x15FA80) user='hp.com' ruser=''
    port='Async1' rem_addr='' authen_type=NONE service=LOGIN priv=0
15:04:47: AAA/AUTHOR/VPDN: : (2445181346): user='hp.com'
15:04:47: AAA/AUTHOR/VPDN: : (2445181346): send AV service=ppp
15:04:47: AAA/AUTHOR/VPDN: : (2445181346): send AV protocol=vpdn
15:04:47: AAA/AUTHOR/VPDN: : (2445181346): Method=TACACS+
15:04:47: AAA/AUTHOR/TAC+: (2445181346): user=hp.com
15:04:47: AAA/AUTHOR/TAC+: (2445181346): send AV service=ppp
15:04:47: AAA/AUTHOR/TAC+: (2445181346): send AV protocol=vpdn
15:04:47: TAC+: (2445181346): received author response status = PASS_ADD

15:04:47: AAA/AUTHOR (2445181346): Post authorization status = PASS_ADD
15:04:47: AAA/AUTHOR/VPDN: Processing AV service=ppp
15:04:47: AAA/AUTHOR/VPDN: Processing AV protocol=vpdn
15:04:47: AAA/AUTHOR/VPDN: Processing AV tunnel-id=isp
15:04:47: AAA/AUTHOR/VPDN: Processing AV ip-addresses=10.31.1.50
15:04:47: AAA/AUTHOR/VPDN: Processing AV nas-password=hello
15:04:47: AAA/AUTHOR/VPDN: Processing AV gw-password=there
15:04:47: VPDN: Get tunnel info with NAS isp GW hp.com, IP 10.31.1.50
!--- The TACACS+ server returns the attributes the !--- NAS should use for the tunnel. !--- The
tunnel-id is "ISP" and the IP address of HGW is 10.31.1.50. 15:04:47: AAA/AUTHEN: free_user
(0x15FA80) user='hp.com' ruser='' port='Async1' rem_addr='' authen_type=NONE service=LOGIN
priv=0 15:04:47: VPDN: Forward to address 10.31.1.50 15:04:47: As1 VPDN: Forwarding... 15:04:47:
AAA/AUTHEN: create_user (0x118008) user='jsmith@hp.com' ruser='' port='Async1' rem_addr='async'
authen_type=CHAP service=PPP priv=1 15:04:47: As1 VPDN: Bind interface direction=1 15:04:47: As1
VPDN: jsmith@hp.com is forwarded
%LINEPROTO-5-UPDOWN: Line protocol on Interface Async1, changed state to up

```

```
15:04:49: AAA/ACCT: NET acct start. User jsmith@hp.com, Port Async1: Async1
!--- User finishes and disconnects. %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1,
changed state to down %LINK-5-CHANGED: Interface Async1, changed state to reset 15:05:27: As1
VPDN: Cleanup 15:05:27: As1 VPDN: Reset 15:05:27: As1 VPDN: Reset 15:05:27: As1 VPDN: Unbind
interface 15:05:27: AAA/ACCT: Network acct stop. User jsmith@hp.com, Port Async1: task_id=2
timezone=UTC service=vpdn bytes_in=1399 bytes_out=150 paks_in=27 paks_out=9 elapsed_time=38
%LINK-3-UPDOWN: Interface Async1, changed state to down 15:05:30: AAA/AUTHEN: free_user
(0x118008) user='jsmith@hp.com' ruser='' port='Async1' rem_addr='async' authen_type=CHAP
service=PPP priv=1 koala#
```

HGW路由器正常調試

```
thing_one#show debug
```

```
General OS:
```

```
AAA Authentication debugging is on
```

```
AAA Authorization debugging is on
```

```
AAA Accounting debugging is on
```

```
VPN:
```

```
VPN events debugging is on
```

```
VPN errors debugging is on
```

```
VTEMPLATE:
```

```
Virtual Template debugging is on
```

```
thing_one#
```

```
15:04:46: AAA/AUTHEN: create_user (0x15E6E0) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: TAC+: ver=192 id=969200103 received AUTHEN status = PASS
```

```
15:04:46: AAA/AUTHEN: free_user (0x15E6E0) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: AAA/AUTHEN (3252085483): status = PASS
```

```
15:04:46: AAA/AUTHEN: free_user (0x15CBEC) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: AAA/AUTHEN: create_user (0x15F1B8) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: AAA/AUTHEN/START (3897539709): port='' list='default'
action=LOGIN service=PPP
```

```
15:04:46: AAA/AUTHEN/START (3897539709): found list default
```

```
15:04:46: AAA/AUTHEN/START (3897539709): Method=TACACS+
```

```
15:04:46: TAC+: send AUTHEN/START packet ver=193 id=3897539709
```

```
15:04:46: TAC+: ver=192 id=3897539709 received AUTHEN status = GETPASS
```

```
15:04:46: AAA/AUTHEN: create_user (0x15E6F0) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: TAC+: ver=192 id=2306139011 received AUTHEN status = PASS
```

```
15:04:46: AAA/AUTHEN: free_user (0x15E6F0) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
```

```
15:04:46: AAA/AUTHEN (3897539709): status = PASS
```

```
15:04:46: VPDN: Chap authentication succeeded for isp
```

```
!--- The LAC ("ISP") is succesfully authenticated. 15:04:46: AAA/AUTHEN: free_user (0x15F1B8)
user='isp' ruser='' port='' rem_addr='' authen_type=CHAP service=PPP priv=1 15:04:46: Vi1
VTEMPLATE: Reuse Vi1, recycle queue size 0 15:04:46: Vi1 VTEMPLATE: Set default settings with no
ip address 15:04:47: Vi1 VTEMPLATE: Hardware address 00e0.1e68.942c 15:04:47: Vi1 VPDN: Virtual
interface created for jsmith@hp.com 15:04:47: Vi1 VPDN: Set to Async interface 15:04:47: Vi1
VPDN: Clone from Vtemplate 1 filterPPP=0 blocking 15:04:47: Vi1 VTEMPLATE: Has a new cloneblk
vtemplate, now it has vtemplate 15:04:47: Vi1 VTEMPLATE: Undo default settings 15:04:47: Vi1
VTEMPLATE: ***** CLONE VACCESS1 ***** 15:04:47: Vi1 VTEMPLATE: Clone from
vtemplate1 interface Virtual-Access1 no ip address encap ppp ip unnum eth 0 peer default ip
address pool async ppp authen chap end %LINK-3-UPDOWN: Interface Virtual-Access1, changed state
to up 15:04:48: Vi1 VPDN: Bind interface direction=2 15:04:48: Vi1 VPDN: PPP LCP accepted sent &
rcv CONFACK 15:04:48: Vi1 VPDN: Virtual interface iteration 15:04:48: AAA/AUTHEN: create_user
(0x161688) user='jsmith@hp.com' ruser='' port='Virtual-Access1' rem_addr='async'
authen_type=CHAP service=PPP priv=1 15:04:48: AAA/AUTHEN/START (580760432): port='Virtual-
Access1' list='' action=LOGIN service=PPP 15:04:48: AAA/AUTHEN/START (580760432): using
"default" list 15:04:48: AAA/AUTHEN/START (580760432): Method=TACACS+ 15:04:48: TAC+: send
```

```
AUTHEN/START packet ver=193 id=580760432 15:04:48: Vil VPDN: Virtual interface iteration
15:04:49: TAC+: ver=192 id=580760432 received AUTHEN status = GETPASS !--- Authenticate user
jsmith@hp.com with the TACACS+ server. 15:04:49: AAA/AUTHEN: create_user (0x1667C0)
user='jsmith@hp.com' ruser=''
port='Virtual-Access1' rem_addr='async' authen_type=CHAP service=PPP priv=1
15:04:49: TAC+: ver=192 id=2894253624 received AUTHEN status = PASS
15:04:49: AAA/AUTHEN: free_user (0x1667C0) user='jsmith@hp.com' ruser=''
port='Virtual-Access1' rem_addr='async' authen_type=CHAP service=PPP priv=1
15:04:49: AAA/AUTHEN (580760432): status = PASS
15:04:49: AAA/AUTHOR/LCP Vil: Authorize LCP
15:04:49: AAA/AUTHOR/LCP: Virtual-Access1: (687698354): user='jsmith@hp.com'
15:04:49: AAA/AUTHOR/LCP: Virtual-Access1: (687698354): send AV service=ppp
15:04:49: AAA/AUTHOR/LCP: Virtual-Access1: (687698354): send AV protocol=lcp
15:04:49: AAA/AUTHOR/LCP: Virtual-Access1: (687698354): Method=TACACS+
15:04:49: AAA/AUTHOR/TAC+: (687698354): user=jsmith@hp.com
15:04:49: AAA/AUTHOR/TAC+: (687698354): send AV service=ppp
15:04:49: AAA/AUTHOR/TAC+: (687698354): send AV protocol=lcp
15:04:49: TAC+: (687698354): received author response status = PASS_ADD
15:04:49: AAA/AUTHOR (687698354): Post authorization status = PASS_ADD
15:04:49: AAA/ACCT: NET acct start. User jsmith@hp.com, Port Virtual-Access1:
Virtual-Access1
15:04:49: AAA/AUTHOR/FSM Vil: (0): Can we start IPCP?
15:04:49: AAA/AUTHOR/FSM: Virtual-Access1: (3562892028): user='jsmith@hp.com'
15:04:49: AAA/AUTHOR/FSM: Virtual-Access1: (3562892028): send AV service=ppp
15:04:49: AAA/AUTHOR/FSM: Virtual-Access1: (3562892028): send AV protocol=ip
15:04:49: AAA/AUTHOR/FSM: Virtual-Access1: (3562892028): Method=TACACS+
15:04:49: AAA/AUTHOR/TAC+: (3562892028): user=jsmith@hp.com
15:04:49: AAA/AUTHOR/TAC+: (3562892028): send AV service=ppp
15:04:49: AAA/AUTHOR/TAC+: (3562892028): send AV protocol=ip
%LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to up
15:04:49: TAC+: (3562892028): received author response status = PASS_ADD
15:04:49: AAA/AUTHOR (3562892028): Post authorization status = PASS_ADD
!--- IPCP negotiation begins. 15:04:49: AAA/AUTHOR/FSM Vil: We can start IPCP 15:04:50:
AAA/AUTHOR/IPCP Vil: Start. Her address 0.0.0.0, we want 0.0.0.0 15:04:50: AAA/AUTHOR/IPCP Vil:
Processing AV service=ppp 15:04:50: AAA/AUTHOR/IPCP Vil: Processing AV protocol=ip 15:04:50:
AAA/AUTHOR/IPCP Vil: Authorization succeeded 15:04:50: AAA/AUTHOR/IPCP Vil: Done. Her address
0.0.0.0, we want 0.0.0.0 15:04:51: AAA/AUTHOR/IPCP Vil: Start. Her address 0.0.0.0, we want
15.15.15.15 15:04:51: AAA/AUTHOR/IPCP Vil: Processing AV service=ppp 15:04:51: AAA/AUTHOR/IPCP
Vil: Processing AV protocol=ip 15:04:51: AAA/AUTHOR/IPCP Vil: Authorization succeeded 15:04:51:
AAA/AUTHOR/IPCP Vil: Done. Her address 0.0.0.0, we want 15.15.15.15 15:04:51: AAA/AUTHOR/IPCP
Vil: Start. Her address 15.15.15.15, we want 15.15.15.15 15:04:51: AAA/AUTHOR/IPCP: Virtual-
Access1: (3193852847): user='jsmith@hp.com' 15:04:51: AAA/AUTHOR/IPCP: Virtual-Access1:
(3193852847): send AV service=ppp 15:04:51: AAA/AUTHOR/IPCP: Virtual-Access1: (3193852847): send
AV protocol=ip 15:04:51: AAA/AUTHOR/IPCP: Virtual-Access1: (3193852847): send AV
addr*15.15.15.15 15:04:51: AAA/AUTHOR/IPCP: Virtual-Access1: (3193852847): Method=TACACS+
15:04:51: AAA/AUTHOR/TAC+: (3193852847): user=jsmith@hp.com 15:04:51: AAA/AUTHOR/TAC+:
(3193852847): send AV service=ppp 15:04:51: AAA/AUTHOR/TAC+: (3193852847): send AV protocol=ip
15:04:51: AAA/AUTHOR/TAC+: (3193852847): send AV addr*15.15.15.15 15:04:51: TAC+: (3193852847):
received author response status = PASS_ADD 15:04:51: AAA/AUTHOR (3193852847): Post authorization
status = PASS_ADD 15:04:51: AAA/AUTHOR/IPCP Vil: Processing AV service=ppp 15:04:51:
AAA/AUTHOR/IPCP Vil: Processing AV protocol=ip 15:04:51: AAA/AUTHOR/IPCP Vil: Processing AV
addr*15.15.15.15 15:04:51: AAA/AUTHOR/IPCP Vil: Authorization succeeded 15:04:51:
AAA/AUTHOR/IPCP Vil: Done. Her address 15.15.15.15, we want 15.15.15.15 !--- User finishes and
disconnects. 15:05:24: Vil VPDN: Reset 15:05:24: Vil VPDN: Reset %LINK-3-UPDOWN: Interface
Virtual-Access1, changed state to down 15:05:24: Vil VPDN: Cleanup 15:05:24: Vil VPDN: Reset
15:05:24: Vil VPDN: Reset 15:05:24: Vil VPDN: Unbind interface 15:05:24: Vil VTEMPLATE: Free
vaccess 15:05:24: Vil VPDN: Reset 15:05:24: Vil VPDN: Reset 15:05:24: AAA/ACCT: Network acct
stop. User jsmith@hp.com, Port Virtual-Access1: task_id=2 timezone=UTC service=ppp protocol=ip
addr=15.15.15.15 bytes_in=564 bytes_out=142 paks_in=15 paks_out=8 elapsed_time=35 15:05:24:
AAA/AUTHEN: free_user (0x161688) user='jsmith@hp.com' ruser='' port='Virtual-Access1'
rem_addr='async' authen_type=CHAP service=PPP priv=1 %LINEPROTO-5-UPDOWN: Line protocol on
Interface Virtual-Access1, changed state to down 15:05:25: VTEMPLATE: Clean up dirty vaccess
queue, size 1 15:05:25: Vil VTEMPLATE: Found a dirty vaccess clone with vtemplate 15:05:25: Vil
```



```
VTEMPLATE: ***** UNCLONE VACCESS1 ***** 15:05:25: Vi1 VTEMPLATE: Unclone to-be-
freed command#5 interface Virtual-Access1 default ppp authen chap default peer default ip
address pool async default ip unnum eth 0 default encap ppp default ip address end 15:05:26: Vi1
VTEMPLATE: Set default settings with no ip address 15:05:26: Vi1 VTEMPLATE: Remove cloneblk
vtemplate with vtemplate 15:05:26: Vi1 VTEMPLATE: Add vaccess to recycle queue, queue size=1
thing_one#
```

ISP路由器上連線失敗的調試

```
koala#show debug
```

```
General OS:
```

```
AAA Authentication debugging is on
```

```
AAA Authorization debugging is on
```

```
AAA Accounting debugging is on
```

```
VPN:
```

```
VPN events debugging is on
```

```
VPN errors debugging is on
```

```
koala#
```

```
!--- Problem 1: !--- The ISP TACACS+ server is down. !--- There is no output on the HGW router
!--- because the call has not gone that far.
```

```
AAA/AUTHOR (3015476150): Post authorization status = ERROR
```

```
AAA/AUTHOR/VPDN: : (3015476150): Method=NOT_SET
```

```
AAA/AUTHOR/VPDN: : (3015476150): no methods left to try
```

```
AAA/AUTHOR (3015476150): Post authorization status = ERROR
```

```
VPDN: (hp.com) Authorization failed, could not talk to AAA server or
local tunnel problem
```

```
!--- Problem 2: !--- Userid hp.com is not in the ISP server. !--- There is no output on the
Gateway router !--- because the call has not gone that far.
```

```
TAC+: (894828802): received author response status = PASS_ADD
```

```
AAA/AUTHOR (894828802): Post authorization status = PASS_ADD
```

```
VPDN: (hp.com) Authorization failed, had talked to AAA server;
but both Tunnel ID and IP address are missing
```

```
AAA/AUTHEN: free_user (0x16A6E4) user='hp.com' ruser=''
port='Async1' rem_addr='' authen_type=NONE service=LOGIN priv=0
```

```
AAA/AUTHEN: create_user (0x16CA8C) user='jsmith@hp.com' ruser=''
port='Async1' rem_addr='async' authen_type=CHAP service=PPP priv=1
```

```
AAA/AUTHEN/START (1904487288): port='Async1' list=''
action=LOGIN service=PPP
```

```
AAA/AUTHEN/START (1904487288): using "default" list
```

```
AAA/AUTHEN (1904487288): status = UNKNOWN
```

```
AAA/AUTHEN/START (1904487288): Method=TACACS+
```

```
TAC+: send AUTHEN/START packet ver=193 id=1904487288
```

```
TAC+: ver=193 id=1904487288 received AUTHEN status = FAIL
```

```
AAA/AUTHEN (1904487288): status = FAIL
```

HGW路由器上失敗連線的調試

```
thing_one#show debug
```

```
General OS:
```

```
AAA Authentication debugging is on
```

```
AAA Authorization debugging is on
```

```
AAA Accounting debugging is on
```

```
VPN:
```

```
VPN events debugging is on
```

```
VPN errors debugging is on
```

```
VTEMPLATE:
```

```
Virtual Template debugging is on
```

```
thing_one#
```

!--- Problem 1: !--- The problem is in the tunnel definition on HGW router. !--- In the HGW configuration, **vpdn incoming hp-gw isp virtual-template 1** !--- is inserted instead of **vpdn incoming isp hp-gw virtual-template 1** !--- The **debug vpdn l2f-errors** command displays.

L2F: Couldn't find tunnel named isp

L2F: Couldn't find tunnel named isp

!--- Problem 2: !--- This message appears when User hp-gw is not in the HGW server.

TAC+: ver=192 id=1920941753 received AUTHEN status = FAIL

AAA/AUTHEN: free_user (0x138C34) user='hp-gw' ruser=''

port='' rem_addr='' authen_type=CHAP service=PPP priv=1

AAA/AUTHEN (3006335673): status = FAIL

VPDN: authentication failed, couldn't find user information for hp-gw

!--- Problem 3: !--- This appears when user isp is not in the HGW server.

TAC+: ver=192 id=1917558147 received AUTHEN status = FAIL

AAA/AUTHEN: free_user (0x15F20C) user='isp' ruser=''

port='' rem_addr='' authen_type=CHAP service=PPP priv=1

AAA/AUTHEN (1949507921): status = FAIL

VPDN: authentication failed, couldn't find user information for isp

!--- Problem 4: !--- This message appears when User jsmith@hp.com is !--- not in the HGW server:

TAC+: ver=192 id=755036341 received AUTHEN status = FAIL

AAA/AUTHEN: free_user (0x15F89C) user='jsmith@hp.com' ruser=''

port='Virtual-Access1' rem_addr='async' authen_type=CHAP service=PPP priv=1

AAA/AUTHEN (2606986667): status = FAIL

[相關資訊](#)

- [Cisco Secure ACS for UNIX支援頁](#)
- [TACACS+支援頁面](#)
- [技術支援與文件 - Cisco Systems](#)