

如何為VPDN設定RADIUS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越到遠端訪問伺服器 (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VPDN使用RADIUS驗證。LAC查詢RADIUS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 UNIX版本2.x.x及更高版本或Merit RADIUS
- 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](#)。

背景資訊

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 RADIUS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。

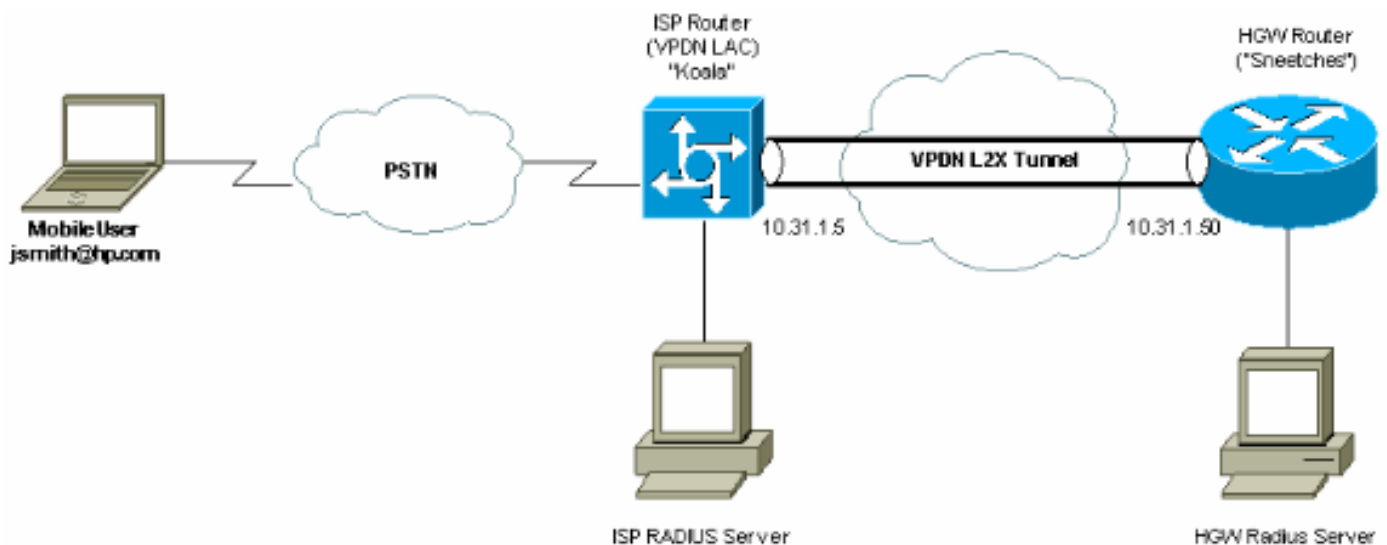
ISP路由器發起隧道並連線到10.31.1.50 HGW路由器，後者在本地對使用者「hp-gw」進行身份驗證，並將使用者id「isp」（「hello」）的密碼轉發到HGW RADIUS伺服器。建立通道後，ISP路由器將轉發到HGW路由器，並在HGW伺服器上驗證該使用者撥號的使用者標識（「jsmith@hp.com」）和密碼（「測試」）。在本示例中，ISP路由器稱為「Koala」，HGW路由器稱為「sneetches」。

設定

本節提供用於設定本文件中所述功能的資訊。

網路圖表

本檔案會使用下圖中所示的網路設定。



伺服器配置

Merit RADIUS配置

```
!--- The RADIUS Server must support Cisco av-pairs. !--- This user is on the ISP RADIUS server.
hp.com Password = "cisco" Service-Type = Outbound-User, cisco-avpair = "vpdn:tunnel-id=isp",
cisco-avpair = "vpdn:ip-addresses=10.31.1.50", cisco-avpair = "vpdn:nas-password=hello", cisco-
avpair = "vpdn:gw-password=there" !--- The next two users are on the HGW Server. isp Password =
"hello", Service-Type = Framed, Framed-Protocol = PPP jsmith@hp.com Password = "test", Service-
Type = Framed, Framed-Protocol = PPP
```

Cisco Secure ACS UNIX 2.x.x配置

```
!--- This user is on the ISP server. # ./ViewProfile -p 9900 -u hp.com User Profile Information
user = hp.com{ profile_id = 86 profile_cycle = 1 RADIUS=Cisco { check_items= { 2="cisco" }
reply_attributes= { 9,1="vpdn:tunnel-id=isp" 9,1="vpdn:ip-addresses=10.31.1.50" 9,1="vpdn:NAS-
password=hello" 9,1="vpdn:gw-password=there" } } } !--- The next two users are on the HGW
Server. # ./ViewProfile -p 9900 -u isp User Profile Information user = isp{ profile_id = 70
profile_cycle = 1 RADIUS=Cisco { check_items= { 2="hello" } reply_attributes= { 6=2 7=1 } } } #
./ViewProfile -p 9900 -u jsmith@hp.com User Profile Information user = jsmith@hp.com{ profile_id
= 84 profile_cycle = 1 RADIUS=Cisco { check_items= { 2="test" } reply_attributes= { 6=2 7=1 } }
}
```

路由器配置

ISP路由器配置

```
koala#show running config

Building configuration...

Current configuration:
!
version 11.3
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname koala
!
aaa new-model
aaa authentication ppp default if-needed RADIUS
aaa authorization network default RADIUS
aaa accounting network default start-stop RADIUS
enable password ww
!
vpdn enable
!--- VPDN is enabled. ! 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 peer default ip address 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 logging
trap debugging logging 171.68.118.101 snmp-server
community public RW snmp-server enable traps config
snmp-server host 171.68.118.105 traps public RADIUS-
server host 171.68.120.194 auth-port 1645 acct-port 1646
RADIUS-server key cisco
!--- Specify RADIUS server information on the NAS. !
line con 0 password WW line 1 password WW autoselect ppp
modem InOut transport input all stopbits 1 speed 115200
```

```
flowcontrol hardware line 2 16 autoselect during-login
line aux 0 line vty 0 4 exec-timeout 0 0 password WW !
end
```

HGW路由器配置

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

Current configuration:
!
version 11.3
no service password-encryption
service udp-small-servers
service tcp-small-servers
!
hostname Sneetches
!
aaa new-model
aaa authentication ppp default RADIUS local
aaa authorization network default RADIUS local
aaa accounting network default start-stop RADIUS
!
username hp-gw password 0 there
username isp password 0 hello
vpdn enable
!--- Enable VPDN. vpdn incoming isp hp-gw virtual-
template 1
!--- Specify the remote host (the network access server)
!--- the local name (the home gateway) to use for
authenticating !--- and the virtual template to use. !
interface Ethernet0 ip address 10.31.1.50 255.255.255.0
! interface Ethernet1 no ip address shutdown ! 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 1.1.1.1 1.1.1.6
ip default-gateway 10.31.1.1 no ip classless ip route
0.0.0.0 0.0.0.0 10.31.1.1 RADIUS-server host
171.68.118.101 auth-port 1645 acct-port 1646
RADIUS-server timeout 20
RADIUS-server key cisco
!--- Specify RADIUS server information on the NAS. !
line con 0 exec-timeout 3600 0 line aux 0 line vty 0 4
password WW ! 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

輸出直譯器工具支援某些show命令，該工具允許您檢視show命令輸出的分析。

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AAA/終端訪問控制器訪問控制系統Plus(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 RADIUS** — 顯示與RADIUS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層隧道協定錯誤和作為VPDN正常隧道建立或關閉的一部分的事件。
- **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

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
RADIUS protocol debugging is on
koala#
%LINK-3-UPDOWN: Interface Async1, changed state to up
17:28:19: VPDN: Looking for tunnel -- hp.com --
17:28:19: AAA/AUTHEN: create_user (0x15D28C) user='hp.com' ruser='' port='Async1'
rem_addr='' authen_type=NONE service=LOGIN priv=0
17:28:19: AAA/AUTHOR/VPDN (982041598): Port='Async1' list='default' service=NET
17:28:19: AAA/AUTHOR/VPDN: (982041598) user='hp.com'
17:28:19: AAA/AUTHOR/VPDN: (982041598) send AV service=ppp
17:28:19: AAA/AUTHOR/VPDN: (982041598) send AV protocol=vpdn
17:28:19: AAA/AUTHOR/VPDN (982041598) found list "default"
17:28:19: AAA/AUTHOR/VPDN: (982041598) Method=RADIUS
17:28:19: RADIUS: authenticating to get author data
17:28:19: RADIUS: Computed extended port value 0:1:
17:28:19: RADIUS: Initial Transmit id 62 171.68.120.194:1645, Access-Request, len 70
17:28:19: Attribute 4 6 0A1F0105
17:28:19: Attribute 5 6 00000001
17:28:19: Attribute 61 6 00000000
17:28:19: Attribute 1 8 68702E63
17:28:19: Attribute 2 18 8070079C
17:28:19: Attribute 6 6 00000005
```

```
17:28:19: RADIUS: Received from id 62 171.68.120.194:1645, Access-Accept, len 143
17:28:19: Attribute 26 26 0000000901147670
17:28:19: Attribute 26 36 00000009011E7670
17:28:19: Attribute 26 31 0000000901197670
17:28:19: Attribute 26 30 0000000901187670
!--- These messages can be decrypted using the OI tool. !--- As of Cisco IOS Software Release
12.2(11)T, !--- the output was changed to be readable. 17:28:19: RADIUS: saved authorization
data for user 15D28C at 10EE74 17:28:19: RADIUS: cisco AVPair "vpdn:tunnel-id=isp" 17:28:19:
RADIUS: cisco AVPair "vpdn:ip-addresses=10.31.1.50" 17:28:19: RADIUS: cisco AVPair "vpdn:nas-
password=hello" 17:28:19: RADIUS: cisco AVPair "vpdn:gw-password=there" 17:28:19: AAA/AUTHOR
(982041598): Post authorization status = PASS_ADD 17:28:19: AAA/AUTHOR/VPDN: Processing AV
service=ppp
17:28:19: AAA/AUTHOR/VPDN: Processing AV protocol=vpdn
17:28:19: AAA/AUTHOR/VPDN: Processing AV tunnel-id=isp
17:28:19: AAA/AUTHOR/VPDN: Processing AV ip-addresses=10.31.1.50
17:28:19: AAA/AUTHOR/VPDN: Processing AV nas-password=hello
17:28:19: AAA/AUTHOR/VPDN: Processing AV gw-password=there
17:28:19: VPDN: Get tunnel info with NAS isp GW hp.com, IP 10.31.1.50
!--- The RADIUS server returns the attributes the !--- NAS should use for the tunnel. !---
Tunnel-id is "ISP" and the IP address of HGW is 10.31.1.50. 17:28:19: AAA/AUTHEN: free_user
(0x15D28C) user='hp.com' ruser='' port='Async1' rem_addr='' authen_type=NONE service=LOGIN
priv=0 17:28:19: VPDN: Forward to address 10.31.1.50 17:28:19: As1 VPDN: Forwarding... 17:28:19:
AAA/AUTHEN: create_user (0x15D334) user='jsmith@hp.com' ruser='' port='Async1' rem_addr='async'
authen_type=CHAP service=PPP priv=1 17:28:19: As1 VPDN: Bind interface direction=1 17:28:19: As1
VPDN: jsmith@hp.com is forwarded 17:28:19: AAA/ACCT/NET/START User jsmith@hp.com, Port Async1,
List "" 17:28:19: AAA/ACCT/NET: Found list "default" 17:28:19: RADIUS: Computed extended port
value 0:1: 17:28:19: RADIUS: Initial Transmit id 63 171.68.120.194:1646, Accounting-Request, len
93 17:28:19: Attribute 4 6 0A1F0105 17:28:19: Attribute 5 6 00000001 17:28:19: Attribute 61 6
00000000 17:28:19: Attribute 1 15 6A736D69 17:28:19: Attribute 40 6 00000001 17:28:19: Attribute
45 6 00000002 17:28:19: Attribute 6 6 00000002 17:28:19: Attribute 44 10 30303030 17:28:19:
Attribute 7 6 7670646E 17:28:19: Attribute 41 6 00000000 17:28:19: RADIUS: Received from id 63
171.68.120.194:1646, Accounting-response, len 20 %LINEPROTO-5-UPDOWN: Line protocol on Interface
Async1, changed state to up koala# !--- The 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 17:28:48: As1 VPDN: Cleanup 17:28:48: As1 VPDN: Reset 17:28:48: As1 VPDN:
Reset 17:28:48: As1 VPDN: Unbind interface 17:28:48: AAA/ACCT/NET/STOP User jsmith@hp.com, Port
Async1: task_id=20 start_time=900759730 timezone=UTC service=vpdn disc-cause=2 disc-cause-
ext=1011 pre-bytes-in=-226131998 pre-bytes-out=-1034130241 pre-paks-in=-63570 pre-paks-out=-
64410 bytes_in=1999 bytes_out=364 paks_in=29 paks_out=12 pre-session-time=5 elapsed_time=29
data-rate=0 xmit-rate=0 17:28:48: RADIUS: Computed extended port value 0:1: 17:28:48: RADIUS:
Initial Transmit id 64 171.68.120.194:1646, Accounting-Request, len 129 17:28:48: Attribute 4 6
0A1F0105 17:28:48: Attribute 5 6 00000001 17:28:48: Attribute 61 6 00000000 17:28:48: Attribute
1 15 6A736D69 17:28:48: Attribute 40 6 00000002 17:28:48: Attribute 45 6 00000002 17:28:48:
Attribute 6 6 00000002 17:28:48: Attribute 44 10 30303030 17:28:48: Attribute 7 6 7670646E
17:28:48: Attribute 49 6 00000002 17:28:48: Attribute 42 6 000007CF 17:28:48: Attribute 43 6
0000016C 17:28:48: Attribute 47 6 0000001D 17:28:48: Attribute 48 6 0000000C 17:28:48: Attribute
46 6 0000001D 17:28:48: Attribute 41 6 00000000 17:28:48: RADIUS: Received from id 64
171.68.120.194:1646, Accounting-response, len 20 %LINK-3-UPDOWN: Interface Async1, changed state
to down 17:28:51: AAA/AUTHEN: free_user (0x15D334) 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

```
Sneetches#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
```

```
RADIUS protocol debugging is on
```

```
Sneetches#
```

```
17:28:21: AAA/AUTHEN: create_user (0x14A914) user='hp-gw' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
17:28:21: AAA/AUTHEN/START (496523999): port='' list='default'
action=SENDAUTH service=PPP
17:28:21: AAA/AUTHEN/START (496523999): found list default
17:28:21: AAA/AUTHEN/START (496523999): Method=RADIUS
17:28:21: RADIUS: SENDPASS not supported (action=4)
17:28:21: AAA/AUTHEN (496523999): status = ERROR
17:28:21: AAA/AUTHEN/START (496523999): Method=LOCAL
17:28:21: AAA/AUTHEN (496523999): status = PASS
17:28:21: AAA/AUTHEN: free_user (0x14A914) user='hp-gw' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
17:28:21: AAA/AUTHEN: create_user (0x14A914) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
17:28:21: AAA/AUTHEN/START (3095573082): port='' list='default'
action=SENDAUTH service=PPP
17:28:21: AAA/AUTHEN/START (3095573082): found list default
17:28:21: AAA/AUTHEN/START (3095573082): Method=RADIUS
17:28:21: RADIUS: SENDPASS not supported (action=4)
17:28:21: AAA/AUTHEN (3095573082): status = ERROR
17:28:21: AAA/AUTHEN/START (3095573082): Method=LOCAL
17:28:21: AAA/AUTHEN (3095573082): status = PASS
17:28:21: AAA/AUTHEN: free_user (0x14A914) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
17:28:21: AAA/AUTHEN: create_user (0x14ADB4) user='isp' ruser='' port=''
rem_addr='' authen_type=CHAP service=PPP priv=1
17:28:21: AAA/AUTHEN/START (3506257139): port='' list='default'
action=LOGIN service=PPP
17:28:21: AAA/AUTHEN/START (3506257139): found list default
17:28:21: AAA/AUTHEN/START (3506257139): Method=RADIUS
17:28:21: RADIUS: Initial Transmit id 53 171.68.118.101:1645, Access-Request, len 68
17:28:21: Attribute 4 6 0A1F0132
17:28:21: Attribute 61 6 00000000
17:28:21: Attribute 1 5 69737003
17:28:21: Attribute 3 19 10C82B7A
17:28:21: Attribute 6 6 00000002
17:28:21: Attribute 7 6 00000001
17:28:21: RADIUS: Received from id 53 171.68.118.101:1645, Access-Accept, len 32
17:28:21: Attribute 6 6 00000002
17:28:21: Attribute 7 6 00000001
17:28:21: AAA/AUTHEN (3506257139): status = PASS
17:28:21: VPDN: Chap authentication succeeded for isp
17:28:21: AAA/AUTHEN: free_user (0x14ADB4) user='isp' ruser='' port='' rem_addr=''
authen_type=CHAP service=PPP priv=1
17:28:21: Vi1 VPDN: Virtual interface created for jsmith@hp.com
17:28:21: Vi1 VPDN: Set to Async interface
17:28:21: Vi1 VPDN: Clone from Vtemplate 1 filterPPP=0 blocking
%LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up
17:28:23: Vi1 VPDN: Bind interface direction=2
17:28:23: Vi1 VPDN: PPP LCP accepted sent & rcv CONFACK
17:28:23: AAA/AUTHEN: create_user (0x143368) user='jsmith@hp.com' ruser=''
port='Virtual-Access1' rem_addr='async' authen_type=CHAP service=PPP priv=1
17:28:23: AAA/AUTHEN/START (637397616): port='Virtual-Access1' list=''
action=LOGIN service=PPP
17:28:23: AAA/AUTHEN/START (637397616): using "default" list
17:28:23: AAA/AUTHEN/START (637397616): Method=RADIUS
17:28:23: RADIUS: Computed extended port value 0:60100:
17:28:23: RADIUS: Initial Transmit id 54 171.68.118.101:1645, Access-Request, len 78
17:28:23: Attribute 4 6 0A1F0132
17:28:23: Attribute 5 6 0000EAC4
17:28:23: Attribute 1 15 6A736D69
17:28:23: Attribute 3 19 186C2AC9
17:28:23: Attribute 6 6 00000002
17:28:23: Attribute 7 6 00000001
```

17:28:23: RADIUS: Received from id 54 171.68.118.101:1645, Access-Accept, len 32
17:28:23: Attribute 6 6 00000002
17:28:23: Attribute 7 6 00000001
17:28:23: AAA/AUTHEN (637397616): status = PASS
17:28:23: AAA/AUTHOR/LCP Vi1: Authorize LCP
17:28:23: AAA/AUTHOR/LCP Vi1 (1528831370): Port='Virtual-Access1' list=''
service=NET
17:28:23: AAA/AUTHOR/LCP: Vi1 (1528831370) user='jsmith@hp.com'
17:28:23: AAA/AUTHOR/LCP: Vi1 (1528831370) send AV service=ppp
17:28:23: AAA/AUTHOR/LCP: Vi1 (1528831370) send AV protocol=lcp
17:28:23: AAA/AUTHOR/LCP (1528831370) found list "default"
17:28:23: AAA/AUTHOR/LCP: Vi1 (1528831370) Method=RADIUS
17:28:23: AAA/AUTHOR (1528831370): Post authorization status = PASS_REPL
17:28:23: AAA/AUTHOR/LCP Vi1: Processing AV service=ppp
17:28:23: AAA/ACCT/NET/START User jsmith@hp.com, Port Virtual-Access1, List ""
17:28:23: AAA/ACCT/NET: Found list "default"
17:28:23: AAA/AUTHOR/FSM Vi1: (0): Can we start IPCP?
17:28:23: AAA/AUTHOR/FSM Vi1 (4249637449): Port='Virtual-Access1' list=''
service=NET
17:28:23: AAA/AUTHOR/FSM: Vi1 (4249637449) user='jsmith@hp.com'
17:28:23: AAA/AUTHOR/FSM: Vi1 (4249637449) send AV service=ppp
17:28:23: AAA/AUTHOR/FSM: Vi1 (4249637449) send AV protocol=ip
17:28:23: AAA/AUTHOR/FSM (4249637449) found list "default"
17:28:23: AAA/AUTHOR/FSM: Vi1 (4249637449) Method=RADIUS
17:28:23: AAA/AUTHOR (4249637449): Post authorization status = PASS_REPL
17:28:23: AAA/AUTHOR/FSM Vi1: We can start IPCP
17:28:23: RADIUS: Computed extended port value 0:60100:
17:28:23: RADIUS: Initial Transmit id 55 171.68.118.101:1646, Accounting-Request,
len 87
17:28:23: Attribute 4 6 0A1F0132
17:28:23: Attribute 5 6 0000EAC4
17:28:23: Attribute 1 15 6A736D69
17:28:23: Attribute 40 6 00000001
17:28:23: Attribute 45 6 00000001
17:28:23: Attribute 6 6 00000002
17:28:23: Attribute 44 10 30303030
17:28:23: Attribute 7 6 00000001
17:28:23: Attribute 41 6 00000000
17:28:23: RADIUS: Received from id 55 171.68.118.101:1646, Accounting-response,
len 20
17:28:23: AAA/AUTHOR/IPCP Vi1: Start. Her address 0.0.0.0, we want 0.0.0.0
17:28:23: AAA/AUTHOR/IPCP Vi1: Processing AV service=ppp
17:28:23: AAA/AUTHOR/IPCP Vi1: Authorization succeeded
17:28:23: AAA/AUTHOR/IPCP Vi1: Done. Her address 0.0.0.0, we want 0.0.0.0
17:28:23: AAA/AUTHOR/IPCP Vi1: Start. Her address 0.0.0.0, we want 1.1.1.1
17:28:23: AAA/AUTHOR/IPCP Vi1: Processing AV service=ppp
17:28:23: AAA/AUTHOR/IPCP Vi1: Authorization succeeded
17:28:23: AAA/AUTHOR/IPCP Vi1: Done. Her address 0.0.0.0, we want 1.1.1.1
17:28:24: AAA/AUTHOR/IPCP Vi1: Start. Her address 1.1.1.1, we want 1.1.1.1
17:28:24: AAA/AUTHOR/IPCP Vi1 (923857566): Port='Virtual-Access1' list=''
service=NET
17:28:24: AAA/AUTHOR/IPCP: Vi1 (923857566) user='jsmith@hp.com'
17:28:24: AAA/AUTHOR/IPCP: Vi1 (923857566) send AV service=ppp
17:28:24: AAA/AUTHOR/IPCP: Vi1 (923857566) send AV protocol=ip
17:28:24: AAA/AUTHOR/IPCP: Vi1 (923857566) send AV addr*1.1.1.1
17:28:24: AAA/AUTHOR/IPCP (923857566) found list "default"
17:28:24: AAA/AUTHOR/IPCP: Vi1 (923857566) Method=RADIUS
17:28:24: AAA/AUTHOR (923857566): Post authorization status = PASS_REPL
17:28:24: AAA/AUTHOR/IPCP Vi1: Reject 1.1.1.1, using 1.1.1.1
17:28:24: AAA/AUTHOR/IPCP Vi1: Processing AV service=ppp
17:28:24: AAA/AUTHOR/IPCP Vi1: Processing AV addr*1.1.1.1
17:28:24: AAA/AUTHOR/IPCP Vi1: Authorization succeeded
17:28:24: AAA/AUTHOR/IPCP Vi1: Done. Her address 1.1.1.1, we want 1.1.1.1
%LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1, changed state to up

Sneetches#

```
!--- The user finishes and disconnects. Sneetches# 17:28:50: Vi1 VPDN: Reset 17:28:50: Vi1
VPDN: Reset %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to down 17:28:50: Vi1 VPDN:
Cleanup 17:28:50: Vi1 VPDN: Reset 17:28:50: Vi1 VPDN: Reset 17:28:50: Vi1 VPDN: Unbind interface
17:28:50: Vi1 VPDN: Reset 17:28:50: Vi1 VPDN: Reset 17:28:50: AAA/ACCT/NET/STOP User
jsmith@hp.com, Port Virtual-Access1: task_id=14 start_time=900759731 timezone=UTC service=ppp
protocol=ip addr=1.1.1.1 disc-cause=2 disc-cause-ext=1011 pre-bytes-in=0 pre-bytes-out=42 pre-
paks-in=0 pre-paks-out=2 bytes_in=882 bytes_out=356 paks_in=17 paks_out=11 pre-session-time=0
elapsed_time=27 data-rate=0 xmit-rate=0 17:28:50: RADIUS: Computed extended port value 0:60100:
17:28:50: RADIUS: Initial Transmit id 56 171.68.118.101:1646, Accounting-Request, len 129
17:28:50: Attribute 4 6 0A1F0132 17:28:50: Attribute 5 6 0000EAC4 17:28:50: Attribute 1 15
6A736D69 17:28:50: Attribute 40 6 00000002 17:28:50: Attribute 45 6 00000001 17:28:50: Attribute
6 6 00000002 17:28:50: Attribute 44 10 30303030 17:28:50: Attribute 7 6 00000001 17:28:50:
Attribute 8 6 01010101 17:28:50: Attribute 49 6 00000002 17:28:50: Attribute 42 6 00000372
17:28:50: Attribute 43 6 00000164 17:28:50: Attribute 47 6 00000011 17:28:50: Attribute 48 6
0000000B 17:28:50: Attribute 46 6 0000001B 17:28:50: Attribute 41 6 00000000 17:28:50: RADIUS:
Received from id 56 171.68.118.101:1646, Accounting-response, len 20 17:28:50: AAA/AUTHEN:
free_user (0x143368) 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 Sneetches#
```

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

RADIUS protocol debugging is on

koala#

```
!--- Problem 1: !--- User hp.com is not in the ISP server: !--- There is no output on HGW router
because the call has not gone that far.
```

```
RADIUS: Received from id 83 171.68.120.194:1645, Access-Reject, len 20 18:43:18:
```

```
AAA/AUTHEN (4063976505): status = FAIL
```

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

```
RADIUS: Received from id 83 171.68.120.194:1645, Access-Reject, len 20 18:43:18:
```

```
AAA/AUTHEN (4063976505): status = FAIL
```

```
!--- Problem 3: !--- Problem in tunnel definition on HGW router; in HGW configuration !--- vpdn
incoming hp-gw isp virtual-template 1 is inserted !--- instead of vpdn incoming isp hp-gw
virtual-template 1.
```

```
%VPDN-5-UNREACH: L2F HGW 10.31.1.50 is unreachable
```

```
VPDN: Timeout opening tunnel to 10.31.1.50
```

```
VPDN: Free busy address 10.31.1.50
```

```
!--- Problem 4: !--- User "isp" or "hp-gw" is removed from HGW router.
```

```
%VPDN-6-AUTHENFAIL: L2F NAS koala, authentication failure for tunnel hp-gw;
```

```
Invalid key
```

```
!--- Problem 5: !--- User "isp" is not in the HGW server.
```

```
%VPDN-6-AUTHENFAIL: L2F HGW , AAA authentication failure for tunnel hp-gw
```

```
!--- Problem 6: !--- User jsmith@hp.com is not in the HGW server.
```

```
%VPDN-6-AUTHENFAIL: L2F HGW hp-gw, AAA authentication failure for As1
```

```
user jsmith@hp.com; Authentication failure
```

HGW路由器上失敗連線的調試

Sneetches#**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

RADIUS protocol debugging is on

Sneetches#

!--- Problem 1: !--- Problem in tunnel definition on the HGW router; in HGW configuration **!---**
vpdn incoming hp-gw isp virtual-template 1 is inserted **!---** instead of **vpdn incoming isp hp-gw**
virtual-template 1 !--- **debug vpdn l2f-errors** display.

19:25:27: L2F: Couldn't find tunnel named isp

19:25:30: L2F: Couldn't find tunnel named isp

!--- Problem 2: !--- User "isp" is removed from the HGW router.

AAA/AUTHEN (3372073334): SENDAUTH no password for isp

AAA/AUTHEN (3372073334): status = ERROR

AAA/AUTHEN/START (3372073334): no methods left to try

AAA/AUTHEN (3372073334): status = ERROR

AAA/AUTHEN/START (3372073334): failed to authenticate

!--- Problem 3: !--- User "hp-gw" is removed from the HGW router.

AAA/AUTHEN (3999868118): SENDAUTH no password for hp-gw

AAA/AUTHEN (3999868118): status = ERROR

AAA/AUTHEN/START (3999868118): no methods left to try

AAA/AUTHEN (3999868118): status = ERROR

AAA/AUTHEN/START (3999868118): failed to authenticate

!--- Problem 4: !--- User "isp" is removed from HGW RADIUS server.

RADIUS: Received from id 107 171.68.118.101:1645, Access-Reject, len 46

Attribute 18 26 41757468

AAA/AUTHEN (2759462034): status = FAIL

VPDN: Chap authentication failed for isp

%VPDN-6-AUTHENFAIL: L2F HGW , AAA authentication failure for tunnel isp

!--- Problem 5: !--- User "jsmith@hp.com" is not in the HGW server.

RADIUS: Received from id 109 171.68.118.101:1645, Access-Reject, len 46

Attribute 18 26 41757468

AAA/AUTHEN (2765235576): status = FAIL

%VPDN-6-AUTHENFAIL: L2F HGW hp-gw, AAA authentication failure for Vi1

user jsmith@hp.com; Authentication failure

相關資訊

- [RADIUS技術支援頁面](#)
- [要求建議 \(RFC\)](#)
- [Cisco Secure UNIX產品支援頁](#)
- [技術支援 - Cisco Systems](#)