使用RADIUS分配PPP會話和空閒超時

目錄

<u> 簡介</u>

此配置將Windows 95/98/NT客戶端與數據機相結合,通過模擬線路撥號到接入伺服器。使用者登入 已由路由器乙太網段上的RADIUS伺服器驗證和授權。本文檔中的Cisco Secure UNIX和Windows配 置檔案使用標準的Internet工程任務組(IETF)屬性來定義會話和空閒超時。這些值以秒為單位。

本文檔未在NAS上提供撥號訪問或AAA的逐步配置說明。如需詳細資訊,請參閱<u>設定撥入使用者端</u> <u>的基本AAA RADIUS</u>。

必要條件

<u>需求</u>

本文件沒有特定需求。

<u>採用元件</u>

本文中的資訊係根據以下軟體和硬體版本:

- Cisco IOS®軟體版本12.0(5.5)T
- Cisco安全UNIX版本2.2.3
- 思科存取伺服器2511

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。

如需文件慣例的詳細資訊,請參閱<u>思科技術提示慣例</u>。

<u>設定</u>

<u>網路圖表</u>

本檔案會使用下圖中所示的網路設定。



<u> 組態</u>

本文檔使用此處顯示的配置。

- Cisco Secure UNIX:RADIUS設定檔
- <u>Cisco Secure ACS for Windows</u>
- <u>路由器A</u>

Cisco Secure UNIX:RADIUS設定檔
./ViewProfile -p 9900 -u radtime
User Profile Information
user = radtime{
profile_id = 99
<pre>profile_cycle = 2</pre>
member = raj
radius=IETF {
check_items= {
2=cisco
}
reply_attributes= {
6=2
7=1
27=180
28=60
}
}
}

Cisco Secure ACS for Windows

完成以下步驟,配置Cisco Secure for Windows以將空閒超時傳遞給NAS。

- 1. 按一下左欄中的User Setup按鈕。
- 2. 轉到相關使用者。
- 在IETF RADIUS Attributes部分,從下拉選單中選擇Service-type(attribute 6)= Framed and Framed-Protocol(attribute 7)=PPP。附註: 還必須按一下位於所選屬性旁邊的覈取方塊 : Service-Type和Framed-Protocol。
- 4. 按一下左欄中的Group Setup按鈕。選擇使用者所屬的組,然後按一下編輯設定。
- 5. 在「Internet Engineering Task Force(IETF)RADIUS Attributes(Internet工程任務組 (IETF)RADIUS屬性)」部分中,按一下「Attribute 27 Session-Timeout(屬性27 Session-Timeout)」和「Attribute 28 Idle-Timeout(屬性28 Idle-Timeout)」旁邊的覈取方塊。在每個屬 性旁邊的框中為每個超時指定所需的值(以秒為單位)。

路由器A

```
Current configuration:
1
version 12.0
service timestamps debug datetime msec
service timestamps log uptime
no service password-encryption
1
hostname router_a
!
no logging console
!--- AAA configuration. The authorization statement is
needed !--- to pass timeout values from ACS to the NAS.
aaa new-model
aaa authentication ppp default if-needed group radius
aaa authorization network default group radius
username john password doe
enable password cisco
1
ip subnet-zero
no ip domain-lookup
!
cns event-service server
!
!
interface Ethernet0
ip address 171.68.201.53 255.255.255.0
no ip directed-broadcast
no ip route-cache
no ip mroute-cache
no cdp enable
!
interface Serial0
no ip address
no ip directed-broadcast
no ip mroute-cache
shutdown
no fair-queue
no cdp enable
!
interface Group-Async1
ip unnumbered Ethernet0
```

no ip directed-broadcast encapsulation ppp no ip route-cache no ip mroute-cache dialer in-band async mode dedicated peer default ip address pool default no cdp enable ppp authentication pap group-range 1 16 ! ip local pool default 10.1.1.1 ip classless ip route 0.0.0.0 0.0.0.0 171.68.201.1 ip route 171.68.0.0 255.255.0.0 171.68.201.1 !--- Specify the RADIUS server host and key. radius-server host 171.68.171.9 auth-port 1645 acct-port 1646 radius-server key ontop ! line con 0 exec-timeout 0 0 timeout login response 60 transport input pad v120 telnet rlogin udptn line 1 16 autoselect during-login autoselect ppp modem InOut transport input all speed 115200 line aux 0 timeout login response 60 line vty 0 4 exec-timeout 0 0 timeout login response 5 password cisco 1 end



本節提供的資訊可用於確認您的組態是否正常運作。

<u>輸出直譯器工具(</u>僅供<u>註冊</u>客戶使用)支援某些**show**命令,此工具可讓您檢視<u>show</u>命令輸出的分析。

• show dialer interface async 1 — 顯示為按需撥號路由(DDR)撥號程式配置檔案配置的介面資訊

• show interfaces async 1 — 顯示串列介面資訊。

此**show**命令輸出演示如何驗證會話和空閒超時是否已正確下載。Cisco建議您運行命令多次。這樣 可讓您觀察計數器的遞減。

router#show dialer interface async 1
Async1 - dialer type = IN-BAND ASYNC NO-PARITY
!--- Check to see that the idletime is 60 seconds for this interface. !--- This was configured
in the RADIUS server. Idle timer (60 sec), Fast idle timer (20 secs)
Wait for carrier (30 secs), Re-enable (15 secs)
Dialer state is data link layer up

Time until disconnect 40 secs (radtime)

```
Dial String
                Successes Failures Last DNIS
                                                    Last status
router#show interface async 1
Async1 is up, line protocol is up
 Hardware is Async Serial
 Interface is unnumbered. Using address of Ethernet0 (171.68.201.53)
 MTU 1500 bytes, BW 115 Kbit, DLY 100000 usec,
     reliability 253/255, txload 1/255, rxload 1/255
 Encapsulation PPP, loopback not set
 Keepalive not set
 DTR is pulsed for 5 seconds on reset
!--- The session (absolute) and idletime decreases. Time to interface disconnect: absolute
00:02:41, idle 00:00:36
 LCP Open
 Open: IPCP
 Last input 00:00:18, output 00:00:18, output hang never
 Last clearing of "show interface" counters 3w0d
 Input queue: 1/75/0 (size/max/drops); Total output drops: 0
 Queueing strategy: weighted fair
 Output queue: 0/1000/64/0 (size/max total/threshold/drops)
     Conversations 0/1/16 (active/max active/max total)
    Reserved Conversations 0/0 (allocated/max allocated)
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     3543 packets input, 155629 bytes, 0 no buffer
    Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
     46 input errors, 46 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
     1903 packets output, 44205 bytes, 0 underruns
     0 output errors, 0 collisions, 44 interface resets
     0 output buffer failures, 0 output buffers swapped out
     0 carrier transitions
router#show interface async 1
Async1 is up, line protocol is up
 Hardware is Async Serial
 Interface is unnumbered. Using address of Ethernet0 (171.68.201.53)
 MTU 1500 bytes, BW 115 Kbit, DLY 100000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
 Encapsulation PPP, loopback not set
 Keepalive not set
 DTR is pulsed for 5 seconds on reset
!--- The user is disconnected because the session !--- timeout (absolute) is reached. Time to
interface disconnect: absolute 00:00:00, idle 00:00:56
 LCP Open
 Open: IPCP
 Last input 00:00:02, output 00:00:03, output hang never
 Last clearing of "show interface" counters 3w0d
 Input queue: 1/75/0 (size/max/drops); Total output drops: 0
 Queueing strategy: weighted fair
 Output queue: 0/1000/64/0 (size/max total/threshold/drops)
     Conversations 0/1/16 (active/max active/max total)
     Reserved Conversations 0/0 (allocated/max allocated)
 5 minute input rate 0 bits/sec, 1 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
     3674 packets input, 163005 bytes, 0 no buffer
     Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
     46 input errors, 46 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
     1984 packets output, 49146 bytes, 0 underruns
     0 output errors, 0 collisions, 44 interface resets
     0 output buffer failures, 0 output buffers swapped out
     0 carrier transitions
```

<u>疑難排解</u>

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命令之前,請參閱<u>有關Debug命令的重要資訊</u>。

- debug ppp authentication 顯示身份驗證協定消息。這些消息包括挑戰驗證協定(CHAP)資料 包交換和口令驗證協定(PAP)交換。
- debug ppp negotiation 顯示在PPP啟動期間傳輸的點對點協定(PPP)資料包,其中會協商 PPP選項。
- debug aaa authorization 顯示有關AAA/RADIUS授權的資訊。
- debug radius 顯示與RADIUS關聯的詳細調試資訊。

<u>路由器調試</u>

此調試輸出顯示了成功的連線。

```
*Mar 22 21:11:02.797: AAA: parse name=tty1 idb type=10 tty=1
*Mar 22 21:11:02.801: AAA: name=tty1 flags=0x11 type=4 shelf=0
  slot=0 adapter=0 port=1 channel=0
*Mar 22 21:11:02.801: AAA/MEMORY: create_user (0x57F3A8) user='' ruser=''
  port='ttyl' rem_addr='async' authen_type=ASCII service=LOGIN priv=1
*Mar 22 21:11:02.833: AAA/MEMORY: free_user (0x57F3A8) user='' ruser='
  port='ttyl' rem_addr='async' authen_type=ASCII service=LOGIN priv=1
*Mar 22 21:11:02.909: As1 IPCP: Install route to 10.1.1.1
*Mar 22 21:11:04.869: As1 LCP: I CONFREQ [Closed] id 0 len 23
*Mar 22 21:11:04.873: As1 LCP: ACCM 0x00000000 (0x020600000000)
*Mar 22 21:11:04.877: As1 LCP:
                                MagicNumber 0x00005F22 (0x050600005F22)
*Mar 22 21:11:04.877: As1 LCP: PFC (0x0702)
*Mar 22 21:11:04.881: As1 LCP: ACFC (0x0802)
*Mar 22 21:11:04.881: As1 LCP: Callback 6 (0x0D0306)
*Mar 22 21:11:04.885: As1 LCP: Lower layer not up, Fast Starting
*Mar 22 21:11:04.889: As1 PPP: Treating connection as a callin
*Mar 22 21:11:04.889: As1 PPP: Phase is ESTABLISHING, Passive Open
*Mar 22 21:11:04.893: As1 LCP: State is Listen
*Mar 22 21:11:04.897: As1 AAA/AUTHOR/FSM: (0): LCP succeeds trivially
*Mar 22 21:11:04.901: As1 LCP: O CONFREQ [Listen] id 104 len 24
*Mar 22 21:11:04.901: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
*Mar 22 21:11:04.905: As1 LCP: AuthProto PAP (0x0304C023)
*Mar 22 21:11:04.909: As1 LCP: MagicNumber 0x812C7E0C (0x0506812C7E0C)
*Mar 22 21:11:04.913: As1 LCP:
                                 PFC (0x0702)
                               ACFC (0x0802)
*Mar 22 21:11:04.913: As1 LCP:
*Mar 22 21:11:04.917: As1 LCP: O CONFREJ [Listen] id 0 len 7
*Mar 22 21:11:04.921: As1 LCP:
                               Callback 6 (0x0D0306)
3w0d: %LINK-3-UPDOWN: Interface Async1, changed state to up
*Mar 22 21:11:06.897: As1 LCP: TIMEout: State REQsent
*Mar 22 21:11:06.901: As1 LCP: O CONFREQ [REQsent] id 105 len 24
*Mar 22 21:11:06.901: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
*Mar 22 21:11:06.905: As1 LCP:
                                 AuthProto PAP (0x0304C023)
                               MagicNumber 0x812C7E0C (0x0506812C7E0C)
*Mar 22 21:11:06.909: As1 LCP:
*Mar 22 21:11:06.909: As1 LCP: PFC (0x0702)
*Mar 22 21:11:06.913: As1 LCP: ACFC (0x0802)
*Mar 22 21:11:07.045: As1 LCP: I CONFACK [REQsent] id 105 len 24
*Mar 22 21:11:07.049: As1 LCP: ACCM 0x000A0000 (0x0206000A0000)
```

AuthProto PAP (0x0304C023) *Mar 22 21:11:07.053: As1 LCP: *Mar 22 21:11:07.057: As1 LCP: MagicNumber 0x812C7E0C (0x0506812C7E0C) *Mar 22 21:11:07.057: As1 LCP: PFC (0x0702) *Mar 22 21:11:07.061: As1 LCP: ACFC (0x0802) *Mar 22 21:11:07.821: As1 LCP: I CONFREQ [ACKrcvd] id 0 len 23 *Mar 22 21:11:07.825: As1 LCP: ACCM 0x00000000 (0x02060000000) *Mar 22 21:11:07.829: As1 LCP: MagicNumber 0x00005F22 (0x050600005F22) *Mar 22 21:11:07.829: As1 LCP: PFC (0x0702) ACFC (0x0802) *Mar 22 21:11:07.833: As1 LCP: *Mar 22 21:11:07.833: As1 LCP: Callback 6 (0x0D0306) *Mar 22 21:11:07.837: As1 LCP: O CONFREJ [ACKrcvd] id 0 len 7 *Mar 22 21:11:07.841: As1 LCP: Callback 6 (0x0D0306) *Mar 22 21:11:07.957: As1 LCP: I CONFREQ [ACKrcvd] id 1 len 20 *Mar 22 21:11:07.961: As1 LCP: ACCM 0x00000000 (0x02060000000) *Mar 22 21:11:07.961: As1 LCP: MagicNumber 0x00005F22 (0x050600005F22) *Mar 22 21:11:07.965: As1 LCP: PFC (0x0702) *Mar 22 21:11:07.969: As1 LCP: ACFC (0x0802) *Mar 22 21:11:07.969: As1 LCP: O CONFACK [ACKrcvd] id 1 len 20 *Mar 22 21:11:07.973: As1 LCP: ACCM 0x00000000 (0x02060000000) *Mar 22 21:11:07.977: As1 LCP: MagicNumber 0x00005F22 (0x050600005F22) *Mar 22 21:11:07.977: As1 LCP: PFC (0x0702) *Mar 22 21:11:07.981: As1 LCP: ACFC (0x0802) *Mar 22 21:11:07.985: As1 LCP: State is Open *Mar 22 21:11:07.985: As1 PPP: Phase is AUTHENTICATING, by this end *Mar 22 21:11:08.245: As1 LCP: I IDENTIFY [Open] id 2 len 18 magic 0x00005F22 MSRASV4.00 *Mar 22 21:11:08.249: As1 LCP: I IDENTIFY [Open] id 3 len 31 magic 0x00005F22 MSRAS-1-RAJESH-SECURITY *Mar 22 21:11:08.253: As1 PAP: I AUTH-REQ id 30 len 18 from "radtime" *Mar 22 21:11:08.265: As1 PAP: Authenticating peer radtime *Mar 22 21:11:08.269: AAA: parse name=Async1 idb type=10 tty=1 *Mar 22 21:11:08.273: AAA: name=Async1 flags=0x11 type=4 shelf=0 slot=0 adapter=0 port=1 channel=0 *Mar 22 21:11:08.273: AAA/MEMORY: create_user (0x57F3A8) user='radtime' ruser='' port='Async1' rem_addr='async' authen_type=PAP service=PPP priv=1 *Mar 22 21:11:08.281: RADIUS: ustruct sharecount=1 *Mar 22 21:11:08.285: RADIUS: Initial Transmit Async1 id 109 172.16.171.9:1645, Access-Request, len 77 *Mar 22 21:11:08.289: Attribute 4 6 AB44C935 *Mar 22 21:11:08.293: Attribute 5 6 0000001 *Mar 22 21:11:08.293: Attribute 61 6 0000000 Attribute 1 9 72616474 *Mar 22 21:11:08.297: Attribute 2 18 486188E4 *Mar 22 21:11:08.297: *Mar 22 21:11:08.301: Attribute 6 6 00000002 *Mar 22 21:11:08.301: Attribute 7 6 00000001 *Mar 22 21:11:08.329: RADIUS: Received from id 109 172.16.171.9:1645, Access-Accept, len 44 *Mar 22 21:11:08.333: Attribute 6 6 0000002 *Mar 22 21:11:08.333: Attribute 7 6 0000001 *Mar 22 21:11:08.337: Attribute 27 6 000000B4 *Mar 22 21:11:08.337: Attribute 28 6 000003C

debug radius指令的屬性值對(AVP)需要解碼。這有助於您更好地瞭解NAS和RADIUS伺服器之間的 事務。

註:自Cisco IOS軟體版本12.2(11)T起,**debug radius指令**的輸出已解碼。它不需要*使用<u>Output</u> Interpreter Tool(僅供註冊客戶使用)來解碼輸出。如需詳細資訊,請參閱RADIUS偵錯增強功能。*

<u>輸出直譯器工具</u>(僅供<u>已註冊</u>客戶使用)允許您接收debug radius命令輸出的分析。

斜體的輸出是從<u>輸出直譯器工具</u>獲得的結果(僅限<u>註冊</u>客戶):

```
Access-Request 172.16.171.9:1645 id 109
Attribute Type 4: NAS-IP-Address is 171.68.201.53
Attribute Type 5: NAS-Port is 1
Attribute Type 61: NAS-Port-Type is Asynchronous
Attribute Type 1: User-Name is radt
Attribute Type 2: User-Password is (encoded)
Attribute Type 6: Service-Type is Framed
Attribute Type 7: Framed-Protocol is PPP
Access-Accept 172.16.171.9:1645 id 109
Attribute Type 6: Service-Type is Framed
Attribute Type 7: Framed-Protocol is PPP
Attribute Type 7: Framed-Protocol is PPP
Attribute Type 7: Session-Timeout is 180 seconds
Attribute Type 28: Idle-Timeout is 60 seconds
```

請注意,會話超時為180秒,空閒超時為60秒。

```
*Mar 22 21:11:08.345: RADIUS: saved authorization data for user 57F3A8 at 5AB9A4
*Mar 22 21:11:08.349: As1 AAA/AUTHOR/LCP: Authorize LCP
*Mar 22 21:11:08.353: As1 AAA/AUTHOR/LCP (2107569326): Port='Asyncl'
  list='' service=NET
*Mar 22 21:11:08.353: AAA/AUTHOR/LCP: As1 (2107569326) user='radtime'
*Mar 22 21:11:08.357: As1 AAA/AUTHOR/LCP (2107569326): send AV service=ppp
*Mar 22 21:11:08.357: As1 AAA/AUTHOR/LCP (2107569326): send AV protocol=lcp
*Mar 22 21:11:08.361: As1 AAA/AUTHOR/LCP (2107569326): found list "default"
*Mar 22 21:11:08.365: As1 AAA/AUTHOR/LCP (2107569326): Method=radius (radius)
*Mar 22 21:11:08.369: As1 AAA/AUTHOR (2107569326): Post authorization
  status = PASS_REPL
*Mar 22 21:11:08.369: As1 AAA/AUTHOR/LCP: Processing AV service=ppp
 !--- The session timeout and idle timeouts are applied to the interface. *Mar 22 21:11:08.373:
As1 AAA/AUTHOR/LCP: Processing AV timeout=180
*Mar 22 21:11:08.633: As1 AAA/AUTHOR/LCP: Processing AV idletime=60
*Mar 22 21:11:09.049: As1 PAP: O AUTH-ACK id 30 len 5
*Mar 22 21:11:09.053: As1 PPP: Phase is UP
*Mar 22 21:11:09.057: As1 AAA/AUTHOR/FSM: (0): Can we start IPCP?
*Mar 22 21:11:09.061: As1 AAA/AUTHOR/FSM (1853995855): Port='Async1'
  list='' service=NET
*Mar 22 21:11:09.061: AAA/AUTHOR/FSM: As1 (1853995855) user='radtime'
*Mar 22 21:11:09.065: As1 AAA/AUTHOR/FSM (1853995855): send AV service=ppp
*Mar 22 21:11:09.065: As1 AAA/AUTHOR/FSM (1853995855): send AV protocol=ip
*Mar 22 21:11:09.069: As1 AAA/AUTHOR/FSM (1853995855): found list "default"
*Mar 22 21:11:09.073: As1 AAA/AUTHOR/FSM (1853995855): Method=radius (radius)
*Mar 22 21:11:09.077: As1 AAA/AUTHOR (1853995855): Post authorization
  status = PASS_REPL
*Mar 22 21:11:09.077: As1 AAA/AUTHOR/FSM: We can start IPCP
*Mar 22 21:11:09.085: As1 IPCP: O CONFREQ [Closed] id 19 len 10
*Mar 22 21:11:09.089: As1 IPCP:
                                  Address 171.68.201.53 (0x0306AB44C935)
*Mar 22 21:11:09.177: As1 CCP: I CONFREQ [Not negotiated] id 4 len 10
*Mar 22 21:11:09.181: As1 CCP: MS-PPC supported bits 0x00000001
  (0x120600000001)
*Mar 22 21:11:09.185: As1 LCP: O PROTREJ [Open] id 106 len 16
  protocol CCP (0x80FD0104000A12060000001)
*Mar 22 21:11:09.189: As1 IPCP: I CONFREQ [REQsent] id 5 len 40
*Mar 22 21:11:09.193: As1 IPCP:
                                  CompressType VJ 15 slots
  CompressSlotID (0x0206002D0F01)
*Mar 22 21:11:09.197: As1 IPCP: Address 0.0.0.0 (0x03060000000)
*Mar 22 21:11:09.201: As1 IPCP: PrimaryDNS 0.0.0.0 (0x81060000000)
*Mar 22 21:11:09.205: As1 IPCP: PrimaryWINS 0.0.0.0 (0x82060000000)
*Mar 22 21:11:09.209: As1 IPCP:
                                SecondaryDNS 0.0.0.0 (0x83060000000)
                                 SecondaryWINS 0.0.0.0 (0x84060000000)
*Mar 22 21:11:09.213: As1 IPCP:
*Mar 22 21:11:09.213: As1 AAA/AUTHOR/IPCP: Start.
```

```
Her address 0.0.0.0, we want 10.1.1.1
*Mar 22 21:11:09.217: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 22 21:11:09.221: As1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 22 21:11:09.221: As1 AAA/AUTHOR/IPCP: Done.
  Her address 0.0.0.0, we want 10.1.1.1
*Mar 22 21:11:09.229: As1 IPCP: O CONFREJ [REQsent] id 5 len 34
*Mar 22 21:11:09.229: As1 IPCP:
                                  CompressType VJ 15 slots
   CompressSlotID (0x0206002D0F01)
                                PrimaryDNS 0.0.0.0 (0x81060000000)
*Mar 22 21:11:09.233: As1 IPCP:
*Mar 22 21:11:09.237: As1 IPCP: PrimaryWINS 0.0.0.0 (0x82060000000)
*Mar 22 21:11:09.241: As1 IPCP: SecondaryDNS 0.0.0.0 (0x83060000000)
*Mar 22 21:11:09.245: As1 IPCP: SecondaryWINS 0.0.0.0 (0x84060000000)
*Mar 22 21:11:09.249: As1 IPCP: I CONFACK [REQsent] id 19 len 10
*Mar 22 21:11:09.253: As1 IPCP:
                                 Address 171.68.201.53 (0x0306AB44C935)
*Mar 22 21:11:09.673: As1 IPCP: I CONFREQ [ACKrcvd] id 6 len 10
*Mar 22 21:11:09.677: As1 IPCP: Address 0.0.0.0 (0x03060000000)
*Mar 22 21:11:09.681: As1 AAA/AUTHOR/IPCP: Start.
  Her address 0.0.0.0, we want 10.1.1.1
*Mar 22 21:11:09.685: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 22 21:11:09.685: As1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 22 21:11:09.689: As1 AAA/AUTHOR/IPCP: Done.
  Her address 0.0.0.0, we want 10.1.1.1
*Mar 22 21:11:09.693: As1 IPCP: O CONFNAK [ACKrcvd] id 6 len 10
*Mar 22 21:11:09.697: As1 IPCP:
                                  Address 10.1.1.1 (0x03060A010101)
*Mar 22 21:11:09.813: As1 IPCP: I CONFREQ [ACKrcvd] id 7 len 10
*Mar 22 21:11:09.817: As1 IPCP: Address 10.1.1.1 (0x03060A010101)
*Mar 22 21:11:09.821: As1 AAA/AUTHOR/IPCP: Start.
  Her address 10.1.1.1, we want 10.1.1.1
*Mar 22 21:11:09.825: As1 AAA/AUTHOR/IPCP (1344088998): Port='Asyncl'
  list='' service=NET
*Mar 22 21:11:09.829: AAA/AUTHOR/IPCP: As1 (1344088998) user='radtime'
*Mar 22 21:11:09.833: As1 AAA/AUTHOR/IPCP (1344088998): send AV service=ppp
*Mar 22 21:11:09.833: As1 AAA/AUTHOR/IPCP (1344088998): send AV protocol=ip
*Mar 22 21:11:09.837: As1 AAA/AUTHOR/IPCP (1344088998): send AV addr*10.1.1.1
*Mar 22 21:11:09.837: As1 AAA/AUTHOR/IPCP (1344088998): found list "default"
*Mar 22 21:11:09.841: As1 AAA/AUTHOR/IPCP (1344088998): Method=radius (radius)
*Mar 22 21:11:09.845: As1 AAA/AUTHOR (1344088998): Post authorization
  status = PASS REPL
*Mar 22 21:11:09.849: As1 AAA/AUTHOR/IPCP: Reject 10.1.1.1, using 10.1.1.1
*Mar 22 21:11:09.853: As1 AAA/AUTHOR/IPCP: Processing AV service=ppp
*Mar 22 21:11:09.857: As1 AAA/AUTHOR/IPCP: Processing AV addr*10.1.1.1
*Mar 22 21:11:09.857: As1 AAA/AUTHOR/IPCP: Authorization succeeded
*Mar 22 21:11:09.861: As1 AAA/AUTHOR/IPCP: Done.
  Her address 10.1.1.1, we want 10.1.1.1
*Mar 22 21:11:09.865: As1 IPCP: O CONFACK [ACKrcvd] id 7 len 10
*Mar 22 21:11:09.869: As1 IPCP: Address 10.1.1.1 (0x03060A010101)
*Mar 22 21:11:09.873: As1 IPCP: State is Open
*Mar 22 21:11:09.885: As1 IPCP: Install route to 10.1.1.1
3w0d: %LINEPROTO-5-UPDOWN: Line protocol on Interface Async1,
   changed state to up
```

- <u>為撥入使用者端設定基本AAA RADIUS</u>
- RADIUS支援頁面
- <u>Cisco Secure UNIX支援頁</u>
- 使用Livingston Server配置RADIUS
- <u>要求建議 (RFC)</u>
- 技術支援 Cisco Systems