Cisco 1600、1700、2600和3600平台上非同步數據機撥入的同步非同步埠

目錄

簡介

本文提供在Cisco 1600、1700、2600和3600路由器上使用同步和非同步埠進行數據機撥入的示例配置。通過下列配置，可以將路由器的同步和非同步介面連線到使用DB-60到RS-232電纜連線到路由器的外部客戶端數據機。

註：如果您有USR sportster數據機，則只有dip開關3和8應該關閉。

開始之前

慣例

如需文件慣例的詳細資訊，請參閱思科技術提示慣例。

必要條件

本文件沒有特定先決條件。

採用元件

本檔案中的資訊是根據以下軟體版本。

- Cisco IOS®軟體版本12.1

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。如果您在即時網路中工作，請確保在使用任何命令之前瞭解其潛在影響。

設定

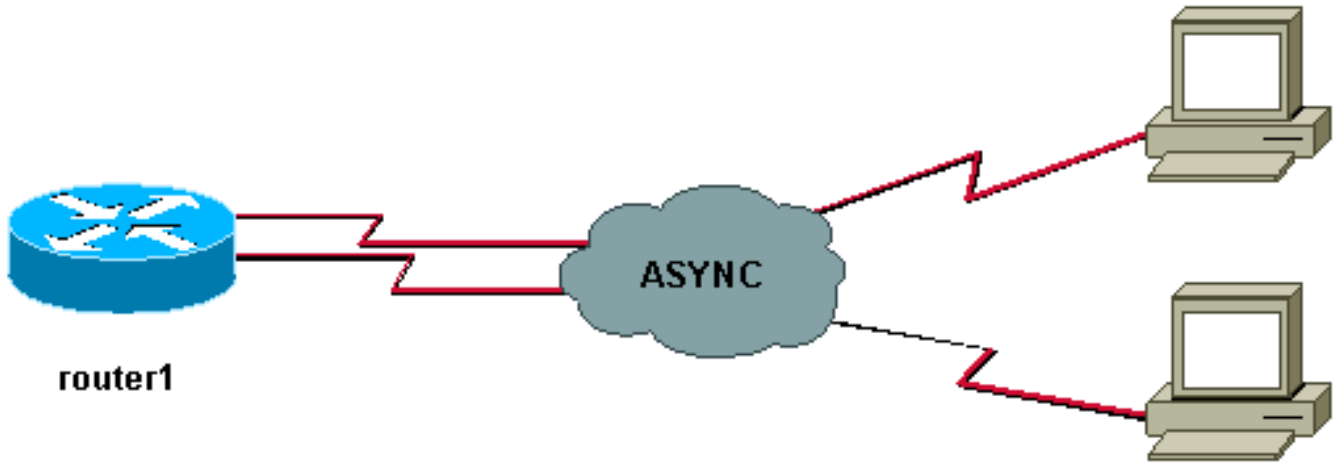
本節提供用於設定本文件中所述功能的資訊。

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)。

有關安裝網路模組和埠編號的詳細資訊，請參閱連線串列網路模組。

網路圖表

本文檔使用下圖所示的網路設定。



組態

本檔案使用下列組態。

路由器1

```
show running-config

!
version 12.1
service timestamps debug datetime msec
no service password-encryption
!
hostname router1
!
boot system slot1:c3640-i-mz.121-20
!
username test password 0 test!--- Local database entries
for authentication. ! memory-size iomem 10 ip subnet-
zero ! ! interface Loopback0 ip address 1.1.1.1
255.255.255.0 ! interface Ethernet0/0 ip address
10.10.10.1 255.255.255.0 ! interface Serial3/0 no ip
address ! interface Serial3/1 no ip address shutdown !
interface Serial3/2 no ip address shutdown ! interface
```

```
Serial3/3 no ip address shutdown ! interface Serial3/4
no ip address shutdown ! interface Serial3/5 no ip
address shutdown ! interface Serial3/6 no ip address
shutdown ! interface Serial3/7 !--- Interface attached
to modem. physical-layer async !--- Put the interface
into async mode. !--- A line appears at the bottom of
the configuration. !--- All the other serial ports on
this module are in sync mode. ip unnumbered Loopback0 !-
-- IP address for the interface. encapsulation ppp async
mode interactive !--- Allow both EXEC and PPP sessions.
peer default ip address pool default !--- Assign IP
address to client. ppp authentication chap !---
Authenticate using Challenge Handshake !---
Authentication Protocol (CHAP). ! ip local pool default
1.1.1.2 !--- Local IP pool of one IP address for client
connect !--- on the external modem connected to
serial3/7. ip classless ip route 0.0.0.0 0.0.0.0
10.10.10.100 ip default-gateway ip http server ! line
con 0 line 104 !--- Line 104 associated with serial 3/7.
modem InOut !--- Modem attached to line. modem
autoconfigure discovery !--- We are hoping that the
modem is a standard hayes !--- compatible modem. The
configuration worked fine. transport input all
autoselect during-login autoselect ppp transport input
all speed 115200 line aux 0 password <removed> login
line vty 0 4 password <removed> login ! end router1#
```

請注意，在介面上配置物理層非同步後，需要配置的配置中出現新的行號（在本例中為104）。 如果您不知道哪個行號與哪個介面相關聯，請發出**show line** EXEC命令檢視對映。完成所有這一切配置並安裝所有硬體後，必須反向Telnet到數據機以鎖定兩台裝置之間的資料終端裝置(DTE)速度。為此，請通過Telnet連線到埠號為2000+x且處於up/up狀態（環回介面非常適合此情況）的機箱上的任何IP地址，其中x是數據機所連線的線路號。在本例中，數據機位於104線路上，因此Telnet到環回地址(1.1.1.1)埠2104。然後，您可以在空白行發出**AT**命令，數據機應回應要求的「OK」。 要斷開連線，請點選**Ctrl-Shift-6**，然後點選**x**以返迴路由器提示，然後鍵入**disconnect**以關閉連線。

注意：請確保關閉連線或連線無法正常工作。

例如：

```
router1#telnet 1.1.1.1 2104
Trying 1.1.1.1, 2104 ... Open
at
OK
router1#disconnect
Closing connection to 1.1.1.1 [confirm]
router1#
```

有時，您需要在DTE速度完全鎖定之前，向數據機發出**at&b0&w0**命令。反向Telnet完成後，使用超級終端機（或其他ASCII程式）撥號到路由器，看看您是否可以取得路由器提示。設定應為8N1。如果這樣有效，則PPP連線也應有效。

驗證

本節提供的資訊可用於確認任何佈線問題。以下是同步/非同步卡的佈線圖。此外，請確保您數據機硬體在行(104)下的狀態與下面所解釋的類似。

```
Sync/async port(DB60 female)<------( CAB-232MT=, Part# 72-0793-01)-------->External Modem
```

註：CAB-232MT電纜是DTE電纜，它使路由器充當DTE裝置。您需要它才能連線到數據機（DCE裝置）。 如果將同步/非同步埠連線到終端裝置(DTE)，則需要使用DCE電纜(CAB-232FC=)，使路由器充當DCE裝置。

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

- **show diag** — 顯示有關網路裝置的控制器、介面處理器和埠介面卡的診斷資訊。
- **show interfaces serial** — 顯示有關串列介面的資訊。
- **show line** — 顯示終端線路的引數。

```
router1#show diag
Slot 0:
....
....
<snipped>
....
Slot 3:
        Sync/Async Port adapter, 8 ports
        Port adapter is analyzed
        Port adapter insertion time unknown
        EEPROM contents at hardware discovery:
        Hardware revision 1.0           Board revision H0
        Serial number     10532987      Part number    800-01225-02
        Test history      0x0           RMA number     00-00-00
        EEPROM format version 1
        EEPROM contents (hex):
          0x20: 01 25 01 00 00 A0 B8 7B 50 04 C9 02 00 00 00 00
          0x30: 88 00 00 00 98 10 23 17 FF FF FF FF FF FF FF FF

router1#show interfaces serial 3/7
Serial3/7 is down, line protocol is down
  Hardware is CD2430 in async mode
  MTU 1500 bytes, BW 9 Kbit, DLY 100000 usec,
     reliability 255/255, txload 1/255, rxload 1/255
....

router1#show interfaces serial 3/0
Serial3/0 is down, line protocol is down
  Hardware is CD2430 in sync mode
  MTU 1500 bytes, BW 128 Kbit, DLY 20000 usec,
     reliability 255/255, txload 1/255, rxload 1/255

router1#show line
   Tty  Typ    Tx/Rx      A  Modem  Roty AccO AccI   Uses  Noise  Overruns   Int
*    0  CTY      -  -      -     -     -     0     0      0/0         -
I   104 TTY 115200/115200 - inout    -     -     -      0    0      0/0      Se3/7
    129 AUX  9600/9600    -     -     -     -     -      0    0      0/0        -
    130 VTY               -     -     -     -     -      0    0      0/0        -
    131 VTY               -     -     -     -     -      0    0      0/0        -
    132 VTY               -     -     -     -     -      0    0      0/0        -
    133 VTY               -     -     -     -     -      0    0      0/0        -
    134 VTY               -     -     -     -     -      0    0      0/0        -

Line(s) not in async mode -or- with no hardware support:
1-96, 98-128

router1#show line 104
   Tty Typ   Tx/Rx      A Modem  Roty AccO AccI   Uses   Noise  Overruns   Int
```

```
I 104  TTY 115200/115200- inout    -     -     -      0       0      0/0      Se3/7

Line 104, Location: "", Type: ""
Length: 24 lines, Width: 80 columns
Baud rate (TX/RX) is 115200/115200, no parity, 2 stopbits, 8 databits
Status: No Exit Banner
Capabilities: Modem Callout, Modem RI is CD,
  Line usable as async interface
Modem state: Idle
Modem hardware state: noCTS noDSR  DTR RTS          !--- External connected modem is off. Special
Chars: Escape Hold Stop Start Disconnect Activation ^^x    none   -      -       none
Timeouts:      Idle EXEC    Idle Session   Modem Answer  Session   Dispatch
               00:10:00        never                       none     not set
                            Idle Session Disconnect Warning
                              never
                            Login-sequence User Response
                             00:00:30
                            Autoselect Initial Wait
                              not set
Modem type is unknown.
Session limit is not set.
Time since activation: never
Editing is enabled.
History is enabled, history size is 10.
DNS resolution in show commands is enabled
Full user help is disabled
Allowed input transports are pad v120 lapb-ta telnet rlogin udptn.
Allowed output transports are pad v120 lapb-ta telnet rlogin.
Preferred transport is telnet.
No output characters are padded
No special data dispatching characters
router1#

router1#show line 104
   Tty Typ Tx/Rx         A Modem  Roty AccO AccI   Uses   Noise  Overruns   Int
   104 TTY 115200/115200 -  inout  -    -    -      0       0       0/0     Se3/7

Line 104, Location: "", Type: ""
Length: 24 lines, Width: 80 columns
Baud rate (TX/RX) is 115200/115200, no parity, 2 stopbits, 8 databits
Status: No Exit Banner, CTS Raised
Capabilities: Modem Callout, Modem RI is CD
Modem state: Idle
Modem hardware state: CTS noDSR  DTR RTS            !--- External connected modem is ON, without
any call on it. Special Chars: Escape Hold Stop Start Disconnect Activation ^^x none - - none
Timeouts: Idle EXEC Idle Session Modem Answer Session Dispatch 00:10:00 never none not set Idle
Session Disconnect Warning never Login-sequence User Response 00:00:30 Autoselect Initial Wait
not set Modem type is unknown. Session limit is not set. Time since activation: never Editing is
enabled. History is enabled, history size is 10. DNS resolution in show commands is enabled Full
user help is disabled Allowed input transports are pad v120 lapb-ta telnet rlogin udptn. Allowed
output transports are pad v120 lapb-ta telnet rlogin. Preferred transport is telnet. No output
characters are padded No special data dispatching characters route1#

router1#show line 104
   Tty Typ  Tx/Rx       A Modem  Roty AccO AccI   Uses   Noise  Overruns   Int
* 104 TTY 115200/115200 - inout   -    -    -       0      1       0/0     Se3/7

Line 104, Location: "", Type: ""
Length: 24 lines, Width: 80 columns
Baud rate (TX/RX) is 115200/115200, no parity, 2 stopbits, 8 databits
Status: PSI Enabled, Ready, Active, No Exit Banner, CTS Raised
  Automore On
Capabilities: Modem Callout, Modem RI is CD
```

```
Modem state: Ready
Modem hardware state: CTS DSR  DTR RTS              !--- External connected modem is ON, with
an active EXEC call on it. Special Chars: Escape Hold Stop Start Disconnect Activation ^^x none
- - none Timeouts: Idle EXEC Idle Session Modem Answer Session Dispatch 00:10:00 never none not
set Idle Session Disconnect Warning never Login-sequence User Response 00:00:30 Autoselect
Initial Wait not set Modem type is unknown. Session limit is not set. Time since activation:
00:01:17 Editing is enabled. History is enabled, history size is 10. DNS resolution in show
commands is enabled Full user help is disabled Allowed input transports are pad v120 lapb-ta
telnet rlogin udptn. Allowed output transports are pad v120 lapb-ta telnet rlogin. Preferred
transport is telnet. No output characters are padded No special data dispatching characters

router1#show interfaces serial 3/7
Serial3/7 is down, line protocol is down                                    !--- External
connected modem is ON, with an active call in EXEC mode. Hardware is CD2430 in async mode
Interface is unnumbered. Using address of Loopback0 (10.10.10.10) 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 LCP Closed Closed: IPCP Last input
00:50:32, output 00:51:29, output hang never Last clearing of "show interface" counters 00:00:38
Input queue: 0/75/0/0 (size/max/drops/flushes); 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 0 packets
input, 0 bytes, 0 no buffer Received 0 broadcasts, 0 runts, 0 giants, 0 throttles 0 input
errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort 0 packets output, 0 bytes, 0 underruns 0
output errors, 0 collisions, 0 interface resets 0 output buffer failures, 0 output buffers
swapped out 0 carrier transitions router1#
```

疑難排解

上述驗證部分提供了有關電纜連線和非同步通訊控制訊號(CTS DSR DTR RTS)的大部分資訊。使用Router 1的上述組態時，使用者應該可以撥號。

- **EXEC模式** — 在EXEC模式下，使用者可以使用串列終端實用程式（如hyperterm/procomm）從數據機撥號到連線到同步/非同步埠的外部數據機。在數據機之間成功進行培訓後，使用者應獲得router1提示。檢驗部分中的所有上述**show**命令是在與路由器的EXEC連線期間收集的。
- **PPP模式** — 在PPP模式下，使用者可以從使用Windows撥號網路的數據機撥號到在同步/非同步埠上連線的外部數據機。如果在EXEC模式下撥號正常，則PPP也應正常工作。請確保配置與上述完全相同。要對PPP模式進行故障排除，請使用以下**debug**命令撥入，這些命令需要與毫秒時間戳一起開啟。按照粗體顯示的調試行檢視調試的進度。如果您需要更多資訊，請使用以下PPP故障排除流程圖。

疑難排解指令

輸出直譯器工具(僅供註冊客戶使用)支援某些**show**命令，此工具可讓您檢視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。

- **service timestamps debug datetime msec** — 用於為調試啟用毫秒時間戳。
- **debug modem** — 用於觀察接入伺服器上的數據機線路活動。
- **debug ppp negotiation** — 用於檢視客戶端是否正在傳遞PPP協商。
- **debug ppp authentication** — 用於檢視客戶端是否正在傳遞身份驗證。
- **debug chat** — 用於顯示聊天指令碼活動。
- **debug confmodem** — 用於顯示與連線到路由器的數據機的發現和配置相關的資訊。
- **show debugging** — 用於顯示有關為路由器啟用的調試型別的資訊。

- **show users** — 用於顯示路由器上活動線路的資訊。

有關故障排除命令示例，請參見下面的命令輸出。

```
router1#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
router1(config)#service timestamps debug datetime msec       !--- Turned on millisecond time
stamping for debugs. router1(config)#end
router1#
router1#debug modem
router1#debug ppp negotiation
router1#debug ppp authentication
router1#debug chat
router1#debug confmodem

router1#show debugging
General OS:
  Modem control/process activation debugging is on
PPP:
  PPP authentication debugging is on
  PPP protocol negotiation debugging is on
Chat Scripts:
  Chat scripts activity debugging is on
router1#

!--- The following is the above mentioned !--- debugs log collected from rotuer, !--- when a PPP
user tried to dialin with a username = test, password = test. router1# router1#clear line 104
[confirm] [OK] router1# *Mar 1 00:06:34.563: TTY104: Line reset by "Exec" *Mar 1 00:06:34.567:
TTY104: Modem: IDLE->HANGUP *Mar 1 00:06:34.567: TTY104: destroy timer type 0 *Mar 1
00:06:34.567: TTY104: destroy timer type 1 *Mar 1 00:06:34.567: TTY104: destroy timer type 3
*Mar 1 00:06:34.567: TTY104: destroy timer type 4 *Mar 1 00:06:34.567: TTY104: destroy timer
type 2 *Mar 1 00:06:35.139: TTY104: dropping DTR, hanging up *Mar 1 00:06:35.139: tty104: Modem:
HANGUP->IDLE *Mar 1 00:06:40.139: TTY104: restoring DTR *Mar 1 00:06:41.139: TTY104:
autoconfigure probe started *Mar 1 00:06:41.139: TTY104: Modem command:  --AT&F&C1&D2S0=1H0--
*Mar  1 00:06:43.675: TTY104: Modem configuration succeeded
*Mar  1 00:06:43.675: TTY104: Detected modem speed 115200
*Mar  1 00:06:43.675: TTY104: Done with modem configuration
router1#
router1#                                !--- Below are debugs when the PPP user tried to dialin.
*Mar 1 00:08:43.163: TTY104: DSR came up
*Mar  1 00:08:43.163: tty104: Modem: IDLE->(unknown)
*Mar  1 00:08:43.163: TTY104: Autoselect started
*Mar  1 00:08:43.163: TTY104: create timer type 0, 120 seconds
*Mar  1 00:08:44.699: TTY104: Autoselect sample 7E
*Mar  1 00:08:44.699: TTY104: Autoselect sample 7EFF
*Mar  1 00:08:44.699: TTY104: Autoselect sample 7EFF7D
*Mar  1 00:08:44.699: TTY104: Autoselect sample 7EFF7D23
*Mar  1 00:08:44.699: TTY104 Autoselect cmd:  ppp negotiate
*Mar  1 00:08:44.699: TTY104: destroy timer type 0 (OK)
*Mar  1 00:08:44.703: TTY104: EXEC creation
*Mar  1 00:08:44.703: TTY104: create timer type 1, 600 seconds
*Mar  1 00:08:44.707: TTY104: destroy timer type 1 (OK)
*Mar  1 00:08:44.707: TTY104: destroy timer type 0
00:08:46: %LINK-3-UPDOWN: Interface Serial3/7, changed state to up
*Mar  1 00:08:46.707: Se3/7 PPP: Treating connection as a dedicated line
*Mar  1 00:08:46.707: Se3/7 PPP: Phase is ESTABLISHING, Active Open
*Mar  1 00:08:46.707: Se3/7 LCP: O CONFREQ [Closed] id 3 len 25
*Mar  1 00:08:46.707: Se3/7 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 00:08:46.707: Se3/7 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 00:08:46.707: Se3/7 LCP:    MagicNumber 0x0014A697 (0x05060014A697)
*Mar  1 00:08:46.707: Se3/7 LCP:    PFC (0x0702)
*Mar  1 00:08:46.707: Se3/7 LCP:    ACFC (0x0802)
*Mar  1 00:08:46.863: Se3/7 LCP: I CONFACK [REQsent] id 3 len 25
```

```
*Mar  1 00:08:46.863: Se3/7 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 00:08:46.863: Se3/7 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 00:08:46.863: Se3/7 LCP:    MagicNumber 0x0014A697 (0x05060014A697)
*Mar  1 00:08:46.863: Se3/7 LCP:    PFC (0x0702)
*Mar  1 00:08:46.863: Se3/7 LCP:    ACFC (0x0802)
*Mar  1 00:08:47.703: Se3/7 LCP: I CONFREQ [ACKrcvd] id 2 len 50
*Mar  1 00:08:47.703: Se3/7 LCP:    ACCM 0x00000000 (0x020600000000)
*Mar  1 00:08:47.703: Se3/7 LCP:    MagicNumber 0x44B3482A (0x050644B3482A)
*Mar  1 00:08:47.703: Se3/7 LCP:    PFC (0x0702)
*Mar  1 00:08:47.703: Se3/7 LCP:    ACFC (0x0802)
*Mar  1 00:08:47.703: Se3/7 LCP:    Callback 6  (0x0D0306)
*Mar  1 00:08:47.703: Se3/7 LCP:    MRRU 1614 (0x1104064E)
*Mar  1 00:08:47.703: Se3/7 LCP:    EndpointDisc 1 Local
*Mar  1 00:08:47.703: Se3/7 LCP:     (0x131701362F5B168BFB407785EE942EB8)
*Mar  1 00:08:47.703: Se3/7 LCP:     (0xEF5D0700000000)
*Mar  1 00:08:47.703: Se3/7 LCP: O CONFREJ [ACKrcvd] id 2 len 11
*Mar  1 00:08:47.703: Se3/7 LCP:    Callback 6  (0x0D0306)
*Mar  1 00:08:47.707: Se3/7 LCP:    MRRU 1614 (0x1104064E)
*Mar  1 00:08:47.855: Se3/7 LCP: I CONFREQ [ACKrcvd] id 3 len 43
*Mar  1 00:08:47.855: Se3/7 LCP:    ACCM 0x00000000 (0x020600000000)
*Mar  1 00:08:47.855: Se3/7 LCP:    MagicNumber 0x44B3482A (0x050644B3482A)
*Mar  1 00:08:47.855: Se3/7 LCP:    PFC (0x0702)
*Mar  1 00:08:47.855: Se3/7 LCP:    ACFC (0x0802)
*Mar  1 00:08:47.855: Se3/7 LCP:    EndpointDisc 1 Local
*Mar  1 00:08:47.855: Se3/7 LCP:     (0x131701362F5B168BFB407785EE942EB8)
*Mar  1 00:08:47.855: Se3/7 LCP:     (0xEF5D0700000000)
*Mar  1 00:08:47.855: Se3/7 LCP: O CONFACK [ACKrcvd] id 3 len 43
*Mar  1 00:08:47.855: Se3/7 LCP:    ACCM 0x00000000 (0x020600000000)
*Mar  1 00:08:47.855: Se3/7 LCP:    MagicNumber 0x44B3482A (0x050644B3482A)
*Mar  1 00:08:47.855: Se3/7 LCP:    PFC (0x0702)
*Mar  1 00:08:47.859: Se3/7 LCP:    ACFC (0x0802)
*Mar  1 00:08:47.859: Se3/7 LCP:    EndpointDisc 1 Local
*Mar  1 00:08:47.859: Se3/7 LCP:     (0x131701362F5B168BFB407785EE942EB8)
*Mar  1 00:08:47.859: Se3/7 LCP:     (0xEF5D0700000000)
*Mar  1 00:08:47.859: Se3/7 LCP: State is Open
*Mar  1 00:08:47.859: Se3/7 PPP: Phase is AUTHENTICATING, by this end
*Mar  1 00:08:47.859: Se3/7 CHAP: O CHALLENGE id 2 len 28 from "router1"
*Mar  1 00:08:48.015: Se3/7 LCP: I IDENTIFY [Open] id 4 len 18 magic 0x44B3482A MSRASV5.00
*Mar  1 00:08:48.031: Se3/7 LCP: I IDENTIFY [Open] id 5 len 27 magic 0x44B3482A MSRAS-1-IRAH-W2K
*Mar  1 00:08:48.043: Se3/7 CHAP: I RESPONSE id 2 len 25 from "test"
*Mar  1 00:08:48.043: Se3/7 CHAP: O SUCCESS id 2 len 4
*Mar  1 00:08:48.047: Se3/7 PPP: Phase is UP
*Mar  1 00:08:48.047: Se3/7 IPCP: O CONFREQ [Closed] id 2 len 10
*Mar  1 00:08:48.047: Se3/7 IPCP:    Address 10.10.10.10 (0x03060A0A0A0A)
*Mar  1 00:08:48.175: Se3/7 CCP: I CONFREQ [Not negotiated] id 6 len 10
*Mar  1 00:08:48.175: Se3/7 CCP:    MS-PPC supported bits 0x00000001 (0x120600000001)
*Mar  1 00:08:48.175: Se3/7 LCP: O PROTREJ [Open] id 4 len 16 protocol CCP
(0x80FD0106000A120600000001)
*Mar  1 00:08:48.191: Se3/7 IPCP: I CONFREQ [REQsent] id 7 len 40
*Mar  1 00:08:48.191: Se3/7 IPCP:    CompressType VJ 15 slots CompressSlotID (0x0206002D0F01)
*Mar  1 00:08:48.191: Se3/7 IPCP:    Address 0.0.0.0 (0x030600000000)
*Mar  1 00:08:48.191: Se3/7 IPCP:    PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP: O CONFREJ [REQsent] id 7 len 34
*Mar  1 00:08:48.195: Se3/7 IPCP:    CompressType VJ 15 slots CompressSlotID (0x0206002D0F01)
*Mar  1 00:08:48.195: Se3/7 IPCP:    PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar  1 00:08:48.195: Se3/7 IPCP:    SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar  1 00:08:48.199: Se3/7 IPCP: I CONFACK [REQsent] id 2 len 10
*Mar  1 00:08:48.199: Se3/7 IPCP:    Address 10.10.10.10 (0x03060A0A0A0A)
*Mar  1 00:08:48.343: Se3/7 IPCP: I CONFREQ [ACKrcvd] id 8 len 10
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*Mar  1 00:08:48.343: Se3/7 IPCP:    Address 0.0.0.0 (0x030600000000)
*Mar  1 00:08:48.343: Se3/7 IPCP: O CONFNAK [ACKrcvd] id 8 len 10
*Mar  1 00:08:48.343: Se3/7 IPCP:    Address 1.1.1.2 (0x030601010102)
*Mar  1 00:08:48.483: Se3/7 IPCP: I CONFREQ [ACKrcvd] id 9 len 10
*Mar  1 00:08:48.483: Se3/7 IPCP:    Address 1.1.1.2 (0x030601010102)
*Mar  1 00:08:48.483: Se3/7 IPCP: O CONFACK [ACKrcvd] id 9 len 10
*Mar  1 00:08:48.483: Se3/7 IPCP:    Address 1.1.1.2 (0x030601010102)
*Mar  1 00:08:48.487: Se3/7 IPCP: State is Open
*Mar  1 00:08:48.487: Se3/7 IPCP: Install route to 1.1.1.2
00:08:49: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial3/7,
changed state to up
router1#


router1#show interfaces serial 3/7
Serial3/7 is up, line protocol is up
  Hardware is CD2430 in async mode
  Interface is unnumbered. Using address of Loopback0 (10.10.10.10)
  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
  LCP Open
  Open: IPCP
  Last input 00:00:00, output 00:00:09, output hang never
  Last clearing of "show interface" counters 00:08:42
  Input queue: 0/75/0/0 (size/max/drops/flushes); 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
     157 packets input, 10790 bytes, 0 no buffer
     Received 0 broadcasts, 0 runts, 0 giants, 0 throttles
     2 input errors, 2 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
     26 packets output, 975 bytes, 0 underruns
     0 output errors, 0 collisions, 1 interface resets
     0 output buffer failures, 0 output buffers swapped out
     0 carrier transitions

router1#show users
      Line      User       Host(s)         Idle     Location
*  0 con 0                  idle           00:00:00
 104 tty 104   test       Async interface  00:00:01  PPP: 1.1.1.2

  Interface      User        Mode           Idle     Peer Address

router1#ping  1.1.1.2

Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 1.1.1.2, timeout is 2 seconds:
!!!!!
Success rate is 100 percent (5/5), round-trip min/avg/max = 156/163/172 ms
router1#
```

相關資訊

- 存取產品支援頁面
- 撥號技術支援頁

- 技術支援 - Cisco Systems