使用AUX 端口上的调制解调器配置拨出

目录

简介

本文档说明如何在AUX端口上使用调制解调器配置拨出。在此场景中，AUX端口上带有调制解调器的路由器会拨打中心站点路由器的主速率接口(PRI)。

注意：我们不描述备份场景，而只是在AUX端口上带有调制解调器的路由器之间显示按需拨号路由(DDR)拨号。

先决条件

要求

尝试此配置之前，请确保您了解与AUX端口上的调制解调器相关的各种问题。有关这些问题的详细信息，请参阅调制解调器 — 路由器连接指南。

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 运行Cisco IOS的Cisco 2600系列路由器？软件版本12.1(2)。
- 运行Cisco IOS软件版本12.0(7)T的Cisco AS5300路由器。

注意：此配置可应用于具有AUX端口甚至控制台端口的任何路由器。但是，由于RS232调制解调器

控制问题和一些安全相关问题，建议不要将调制解调器连接到控制台端口。有关详细信息，请参阅《调制解调器 — 路由器连接指南》。

本文档中的信息都是基于特定实验室环境中的设备创建的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您是在真实网络上操作，请确保您在使用任何命令前已经了解其潜在影响。

规则

有关文件规则的更多信息请参见"Cisco技术提示规则"。

配置

本部分提供有关如何配置本文档所述功能的信息。

注：要查找有关本文档中使用的命令的其他信息，请使用命令查找工具(仅注册客户)。

网络图

本文档使用下图所示的网络设置。
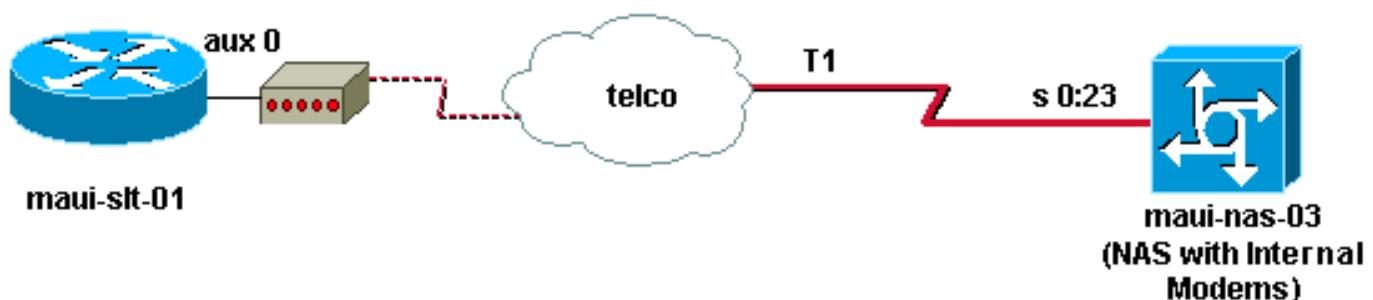
配置

本文档使用以下配置：

- maui-slt-01 (2600)
- maui-nas-03 (5300)

在此配置中，maui-slt-01(2600)使用AUX端口上的调制解调器拨号maui-nas-03(AS5300)的PRI。NAS(maui-nas-03)配置为将呼叫发送到内部数字调制解调器。

maui-slt-01 (2600)

```
maui-slt-01#show running-config
Building configuration...

Current configuration:
!
version 12.1
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
```

```
hostname maui-slt-01
!
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
!--- This is the basic AAA configuration for PPP calls.
enable secret 5 <deleted> ! username admin password 0
<deleted> username maui-nas-03 password 0 cisco !---
Defines username for remote router (maui-nas-03), and
shared secret !--- password. Shared secret (used for
CHAP authentication) !--- must be the same on both
sides. ! memory-size iomem 30 ip subnet-zero ! chat-
script Dialout ABORT ERROR ABORT BUSY "" "AT" OK "ATDT
\T" TIMEOUT 45 CONNECT \c !--- Sets up chat script
"Dialout" used for the dialout connection on aux 0.
modemcap entry MY_USR_MODEM:MSC=&F1S0=1 !--- Modemcap
(MY_USR_MODEM) is applied to the AUX port line
interface. !--- This modemcap was created through the
command: !--- modemcap edit MY_USR_MODEM miscellaneous
&F1S0=1 !--- See the Modem-Router Connection Guide for
more information. ! interface Loopback0 ip address
172.17.1.1 255.255.255.0 ! interface FastEthernet0/0 ip
address 172.16.1.1 255.255.255.0 no keepalive duplex
auto speed auto ! !--- Irrelevant output has been
removed. ! interface Async65 !--- Async interface that
corresponds to the AUX Port. !--- This was determined
through the show line command. !--- See External Modem
Setup and Troubleshooting Tasks for more information. no
ip address encapsulation ppp !--- Use PPP encapsulation
over this link. dialer in-band dialer pool-member 20 !--
- Designate Async65 as member of dialer pool 20. !---
The dialer pool 20 command is specified in interface
Dialer 10.

 async default routing
!--- This permits routing over the async interface. !---
This is required for a routing protocol to run accross
the async link. ppp authentication chap callin !
interface Dialer10 !---Dialer 10 is the logical
interface for Dialer Pool 20. ip unnumbered Loopback0 !-
-- This uses the Loopback 0 IP address. encapsulation
ppp ip ospf demand-circuit dialer remote-name maui-nas-
03 !--- This specifies the remote router name. !--- This
name must match the name that the remote router uses for
!--- authentication. dialer pool 20 !--- Async 65 is a
member of this pool. dialer idle-timeout 900 dialer
string 81690 !--- This defines the phone number of the
destination router. dialer max-call 4096 dialer-group 1
!--- Apply the definition of interesting traffic from
dialer-list 1.

 ppp authentication chap callin
!--- Use CHAP authentication for incoming calls. !
router ospf 5 network 172.16.1.0 0.0.0.255 area 0
network 172.17.1.0 0.0.0.255 area 0 network 172.22.1.0
0.0.0.255 area 0 !---OSPF is used between the routers.
!---A routing protocol is unnecessary if you configure
appropriate static routes. ! ip classless ip route
0.0.0.0 0.0.0.0 Dialer10 !--- Default route points to
int dialer 10. !--- This is necessary because OSPF is
not configured to send default routes. no ip http server
! access-list 101 remark Define Interesting Traffic
access-list 101 deny ospf any any access-list 101 permit
```

```
ip any any dialer-list 1 protocol ip list 101 !--- Use
access list 101 for interesting traffic definition. !---
This is applied to interface Dialer 10 through dialer-
group 1.


!
line con 0
 login authentication NO_AUTHEN
 transport input none
!
line aux 0
!--- Line interface for the AUX port. exec-timeout 0 0
!--- This disables exec timeout on the interface. script
dialer Dialout !--- Use chat script "Dialout". modem
InOut !--- This enables incoming and outgoing calls.
modem autoconfigure type MY_USR_MODEM !--- Now apply the
modemcap MY_USR_MODEM that you configured previously.
transport input all stopbits 1 !--- Reduce async framing
overhead to improve throughput. speed 115200 !--- The
AUX port on the 2600 supports a speed of 115200. !---
Note: If you route through the AUX port, each character
generates a !--- processor interrupt. This is an
abnormally high load on the CPU, !--- which can be
resolved if you use a lower AUX port speed. flowcontrol
hardware !--- This configures RTS/CTS flow control. line
vty 0 4 ! no scheduler allocate end
```

maui-nas-03 (5300)

```
maui-nas-03#show running-config
Building configuration...

Current configuration:
!
version 12.0
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname maui-nas-03
!
aaa new-model
aaa authentication login default local
aaa authentication login NO_AUTHEN none
aaa authentication ppp default local
!--- This is the basic AAA configuration for PPP calls.
enable secret 5 <deleted> ! username admin password 0
<deleted> username maui-slt-01 password 0 cisco !---
Defines username for remote router (maui-slt-01) and
shared secret password. !--- Shared secret(used for CHAP
authentication) must be the same on both sides. spe 1/0
1/7 firmware location system:/ucode/mica_port_firmware !
ip subnet-zero ! isdn switch-type primary-ni mta receive
maximum-recipients 0 ! controller T1 0 !--- Primary T1.
framing esf clock source line primary linecode b8zs pri-
group timeslots 1-24 ! !--- Irrelevant output has been
removed. ! interface Loopback0 ip address 172.22.1.1
255.255.255.0 no ip directed-broadcast ! interface
Ethernet0 ip address 172.22.53.105 255.255.255.0 no ip
directed-broadcast no keepalive ! !--- Irrelevant output
has been removed. ! interface Serial0:23 !--- D-channel
for T1 0. no ip address no ip directed-broadcast
encapsulation ppp isdn switch-type primary-ni isdn
```

```
incoming-voice modem !--- This sends incoming async
calls to the modems. fair-queue 64 256 0 ppp
authentication chap ! !--- Irrelevant output has been
removed. ! interface Group-Async0 !--- Group-Async
interface is used to aggregate the modems. ip unnumbered
Loopback0 no ip directed-broadcast encapsulation ppp ip
ospf network point-to-point !--- This identifies the
type of OSPF network. async default routing !--- This
permits routing over the async interface. !--- It is
required for a routing protocol to run on the async
link. async mode interactive peer default ip address
pool clientpool !--- This assigns an IP address from the
pool named "clientpool" for the !--- incoming call. ppp
authentication chap group-range 1 96 ! router ospf 5
network 172.22.1.0 0.0.0.255 area 0 network 172.22.53.0
0.0.0.255 area 0 ! ip local pool clientpool 172.22.1.2
172.22.1.30 !--- IP addresses for dialin calls are given
from this pool. ip classless no ip http server ! line
con 0 login authentication NO_AUTHEN transport input
none line 1 96 autoselect ppp modem InOut transport
preferred lat pad telnet rlogin udptn v120 lapb-ta
transport output lat pad telnet rlogin udptn v120 lapb-
ta line aux 0 line vty 0 4 ! end
```

注意：maui-nas-03并未特别配置为仅接受来自maui-slt-01（客户端）的呼叫。 从NAS(maui-nas-03)的角度来看，传入呼叫只是另一个拨入客户端。此配置可用于许多远程客户端拨打中心站点NAS的PRI并连接到公司网络。

验证

本部分所提供的信息可用于确认您的配置是否正常工作。

命令输出解释程序工具（仅限注册用户）支持某些 show 命令，使用此工具可以查看对 show 命令输出的分析。

show 输出示例

使用show ip route命令验证是否有到拨号器或异步接口的路由。如果没有到异步或拨号器接口拨号的路由，则无法进行。因此，请根据需要配置静态路由。

```
maui-slt-01#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 0.0.0.0 to network 0.0.0.0

     172.17.0.0/24 is subnetted, 1 subnets
C       172.17.1.0 is directly connected, Loopback0
     172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, FastEthernet0/0
S*   0.0.0.0/0 is directly connected, Dialer10
```

注意：有到拨号器接口的默认路由。

然后，路由器启动拨号、连接、协商PPP并交换OSPF数据库。有关此过程的详细信息，请参阅以下调试信息：

连接成功**后，请使用**show ip route命令。在本场景中，使用路由协议OSPF。观察添加到路由表中的OSPF路由。

```
maui-slt-01#show ip route
Codes: C - connected, S - static, I - IGRP, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is 0.0.0.0 to network 0.0.0.0

     172.17.0.0/24 is subnetted, 1 subnets
C       172.17.1.0 is directly connected, Loopback0
     172.16.0.0/24 is subnetted, 1 subnets
C       172.16.1.0 is directly connected, FastEthernet0/0
     172.22.0.0/16 is variably subnetted, 2 subnets, 2 masks
O       172.22.53.0/24 [110/1795] via 172.22.1.1, 00:00:03, Dialer10
C       172.22.1.1/32 is directly connected, Dialer10
S*   0.0.0.0/0 is directly connected, Dialer10
```

故障排除

本部分提供的信息可用于对配置进行故障排除。

外置调制解调器安装和故障排除任务

完成以下步骤以设置外部调制解调器并检验调制解调器是否正常工作。当您验证路由器是否可以借助此调制解调器进行拨号和连接时，可在路由器拨出时执行必要的DDR配置、PPP配置和其他更高级别的协议配置。本节假设接收呼叫的路由器已正确配置，如上所示。

1. 将适当的电缆从AUX端口连接到调制解调器。有关布线选项的详细信息，请参阅调制解调器 — 路由器连接指南。
2. 使用 show line 命令确定 AUX 端口的异步接口。虽然大多数路由器将 AUX 端口作为 interface async 1，但接入服务器却将 AUX 端口接口置于 tty 线路之后。例如，如果您的路由器有16条异步或调制解调器线路，则AUX端口为线路17。在这种情况下，必须在接口异步17上配置AUX端口。根据show line输出。本示例验证在maui-slt-01上，AUX端口配置在接口Async65上。

```
maui-slt-01#show line
   Tty Typ     Tx/Rx      A Modem  Roty AccO AccI   Uses   Noise  Overruns   Int
*    0 CTY                -   -      -   -    -       0       0     0/0        -
    65 AUX   9600/9600    -   -      -   -    -       0       1     0/0        -
    66 VTY                -   -      -   -    -       0       0     0/0        -
    67 VTY                -   -      -   -    -       0       0     0/0        -
    68 VTY                -   -      -   -    -       0       0     0/0        -
    69 VTY                -   -      -   -    -       0       0     0/0        -
    70 VTY                -   -      -   -    -       0       0     0/0        -

   Line(s) not in async mode -or- with no hardware support:
```

3. 为连接到AUX端口的调制解调器配置Modemcap。有关适当[的初始化字符串](#)，请参阅《调制解调器 — 路由器连接指南》。创建包含该初始化(init)字符串的新Modemcap。以下是新Modemcap（名为MY_USR_MODEM）的示例：

```
maui-slt-01(config)#modemcap edit MY_USR_MODEM miscellaneous &F1S0=1
```

在上述Modemcap配置中，&F1S0=1是初始字符串。有关适合[调制解调器的](#)初始字符串的特定信息，请参阅创建Modemcap。

4. 将modemcap应用于AUX端口。我们之前已验证AUX端口在线65。

```
maui-slt-01(config)#line 65
maui-slt-01(config-line)#modem autoconfigure type MY_USR_MODEM
```

您还应配置AUX端口线以连接调制解调器。有关线路配置[的信息，请参阅《调制解调器](#) — 路由器连接指南》。前面显示的maui-slt-01的示例配置还包括必要的命令。使用**debug confmodem**验证是否正确应用了modemcap。重新通电调制解调器后，路由器会自动配置调制解调器。

```
maui-slt-01#debug confmodem
Modem Configuration Database debugging is on
maui-slt-01#
```
!--- Power cycle the modem. `*Mar 1 06:58:10.118: TTY65: detection speed (115200) response ---OK---` `*Mar 1 06:58:10.122: TTY65:` **Modem command: --AT&F1S0=1--**
!--- Apply the init string specified in the modemcap. `*Mar 1 06:58:10.758:` **TTY65: Modem configuration succeeded**
!--- Modem configuration is successful. `*Mar 1 06:58:10.758: TTY65: Detected modem speed 115200` `*Mar 1 06:58:10.758: TTY65: Done with modem configuration maui-slt-01#`

5. 发出**show line aux 0**或**show line aux-***line*命令。检验是否所有信号都已接通。例如，CTS、RTS、DTR、CD。如果这些信号旁未出现任何信息，则表示它们处于启用状态。如果"否"（例如，"无CTS"）旁显示，则表示它们已关闭。如果它们关闭，请检验路由器的电缆和配置。另请检查您是否正确配置了异步接口和AUX端口线路。有关布线的详细信息，请参阅《调制解调器路[由器连接指南》](#)。有关如何排除问题[的信息，请](#)参阅拨入连接故障排除文档。示例如下：

```
maui-slt-01#show line 65
    Tty Typ     Tx/Rx    A Modem  Roty AccO AccI   Uses   Noise  Overruns   Int
A   65 AUX 115200/115200- inout    -    -    -      8      1     1/0         -
   Ready

Line 65, Location: "PPP: 172.22.1.1", Type: ""
Length: 24 lines, Width: 80 columns
```
Baud rate (TX/RX) is 115200/115200, no parity, 1 stopbits, 8 databits
```
Status: Ready, Active, No Exit Banner, Async Interface Active
  Modem Detected, CTS Raised, Modem Signals Polled
Capabilities: Hardware Flowcontrol In, Hardware Flowcontrol Out
  Modem Callout, Modem RI is CD, Modem Autoconfigure
Modem state: Ready
Group codes:    0
Line is running PPP routing for address 172.22.1.1.
0 output packets queued, 1 input packets.
 Async Escape map is 000000000000000001010000000000000
```
Modem hardware state: CTS* DSR* DTR RTS
!--- All signals are up. `TTY NUMBER 65 Parity Error = 0 Framing Error = 536 Receive Error = 536 Overrun = 1 Outcount = 0 totalout = 40615 incount = 0 totalin = 49805 , Modem Configured 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 MY_USR_MODEM.**
!--- Modemcap is MY_USR_MODEM. `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 transports are lat pad v120 mop telnet rlogin nasi. Preferred is lat. No output characters are padded No special data dispatching characters maui-slt-01#`

6. 执行r通过Telnet从AUX端口连接到调制解调器，并使用AT命令集**手动拨号**并连接到远程设备

。这可用于检验调制解调器硬件和电话电路是否正常工作。在本例中，由于AUX端口在线65，因此您必须反向telnet至路由器上的端口2065。有关反向Telnet的详细信息，请[参阅建立到调制解调器的反向Telnet会话](#)。

```
maui-slt-01#telnet 172.17.1.1 2065
Trying 172.17.1.1, 2065 ...Open

User Access Verification

Username: admin Password:
```
!--- Authentication performed by local router for the reverse Telnet. at OK **atdt 81690**
!--- The modem dials (81690), and connects. !--- This process takes approximately 30 to 45 seconds. CONNECT 31200/ARQ/V34/LAPM/V42BIS *!--- Connection speed and protocols that were negotiated.* User Access Verification Username: maui-slt-01 Password: *!--- Authentication performed by the remote router for the incoming call.* maui-nas-03> *!--- Prompt on the remote router.*

如上所示，我们对调制解调器执行反向Telnet，并使用**at**命令验证调制解调器是否响应。收到OK（确定）后，请借助atdt number命令拨**打远程**号码。呼叫继续，并连接到远程设备。然后，远程路由器对传入呼叫进行身份验证。如果观察到外部调制解调器没有拨号，请验证布线是否正确、外部调制解调器是否有故障以及电话线是否处于活动状态。有关详细信息[，请参阅配置调制解调器支持和其他异步功能](#)和排[除拨入连接故障](#)。完成上述任务和步骤后，您可以继续测试路由器是否可以自动启动拨号连接。有关详细信息，请参阅AUX端口上使用调制解调器配[置拨出文档的显示输出示例和调](#)试输出示例部分。

故障排除命令

[命令输出解释程序工具（仅限注册用户）支持某些](#) show 命令，使用此工具可以查看对 show 命令输出的分析。

注意：在发出debug命令之前，请参[阅有关Debug命令的重要信息](#)。

- debug dialer?？？？显示有关拨号器接口上收到的数据包的调试信息。在接口上启用DDR时，还会显示与任何呼叫原因（称为拨号原因）相关的信息。有关详细信息，请参阅**debug clns - debug fras**中的[debug dialer命令](#)。
- debug modem???显示路由器上的调制解调器线路活动、调制解调器控制和进程激活消息。
- debug chat？？？监视启动异步/POTS拨号时聊天脚本的执行。请参阅拨号[技术的异步出站呼叫—验证聊天脚](#)本操作[部分：故障排除技术。](#)
- debug ppp negotiation??？显示PPP流量和交换信息，当它协商PPP组件时，如链路控制协议(LCP)、身份验证和网络控制协议(NCP)。一个成功的PPP协商协议首先开启LCP状态，然后是鉴权，最后协商NCP。
- debug ppp authentication??显示PPP身份验证协议消息，包括质询身份验证协议(CHAP)数据包交换和密码身份验证协议(PAP)交换。

调试输出示例

使用以下debug命令排除连接故障：

```
maui-slt-01#debug dialer
Dial on demand events debugging is on
maui-slt-01#debug chat
Chat scripts activity debugging is on
maui-slt-01#debug modem
Modem control/process activation debugging is on
```

```
maui-slt-01#debug ppp negotiation
PPP protocol negotiation debugging is on
maui-slt-01#debug ppp authentication
PPP authentication debugging is on
maui-slt-01#
maui-slt-01#show debug
General OS:
  Modem control/process activation debugging is on
Dial on demand:
  Dial on demand events debugging is on
PPP:
  PPP authentication debugging is on
  PPP protocol negotiation debugging is on
Chat Scripts:
  Chat scripts activity debugging is on
maui-slt-01#
maui-slt-01#ping 172.22.53.105


Type escape sequence to abort.
Sending 5, 100-byte ICMP Echos to 172.22.53.105, timeout is 2 seconds:


*Mar  1 05:37:44.858: As65 DDR: rotor dialout [priority]
*Mar  1 05:37:44.858: As65 DDR: Dialing cause ip (s=172.17.1.1, d=172.22.53.105)
!--- Dialing reason. *Mar 1 05:37:44.858: As65 DDR: Attempting to dial 81690
!--- Phone number that is dialed. *Mar 1 05:37:44.858: CHAT65: Attempting async line dialer
script *Mar 1 05:37:44.858: CHAT65: Dialing using Modem script: Dialout
 & System script: none
 !--- Use the chat-script "Dialout". *Mar 1 05:37:44.862: CHAT65: process started *Mar 1
05:37:44.862: CHAT65: Asserting DTR *Mar 1 05:37:44.862: TTY65: Set DTR to 1 *Mar 1
05:37:44.862: CHAT65: Chat script Dialout started !--- Chat-script "Dialout" has started. *Mar 1
05:37:44.862: CHAT65: Sending string: AT *Mar 1 05:37:44.862: CHAT65: Expecting string: OK *Mar
1 05:37:44.990: CHAT65: Completed match for expect: OK *Mar 1 05:37:44.990: CHAT65: Sending
string: ATDT \T<81690> *Mar 1 05:37:44.990: CHAT65: Expecting string: CONNECT
*Mar  1 05:38:02.774: CHAT65: Completed match for expect: CONNECT
*Mar  1 05:38:02.774: CHAT65: Sending string: \c
*Mar  1 05:38:02.774: CHAT65: Chat script Dialout finished, status = Success
!--- Chat script is successful. !--- Notice the Expect/Send Attributes and the time elapsed.
*Mar 1 05:38:02.774: TTY65: destroy timer type 1 *Mar 1 05:38:02.778: TTY65: destroy timer type
0 *Mar 1 05:38:04.778: %LINK-3-UPDOWN: Interface Async65, changed state to up *Mar 1
05:38:04.778: Async65 DDR: Dialer statechange to up *Mar 1 05:38:04.778: %DIALER-6-BIND:
Interface As65 bound to profile Di10 *Mar 1 05:38:04.782: Async65 DDR: Dialer call has been
placed *Mar 1 05:38:04.782: As65 PPP: Treating connection as a callout
!--- PPP LCP negotiation begins. *Mar 1 05:38:04.782: As65 PPP: Phase is ESTABLISHING, Active
Open *Mar 1 05:38:04.782: As65 PPP: No remote authentication for call-out *Mar 1 05:38:04.782:
As65 LCP: O CONFREQ [Closed] id 43 len 20
*Mar  1 05:38:04.782: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:04.782: As65 LCP:    MagicNumber 0x314EFEBB (0x0506314EFEBB)
*Mar  1 05:38:04.786: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:04.786: As65 LCP:    ACFC (0x0802)
*Mar  1 05:38:06.782: As65 LCP: TIMEout: State REQsent
*Mar  1 05:38:06.782: As65 LCP: O CONFREQ [REQsent] id 44 len 20
*Mar  1 05:38:06.782: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:06.782: As65 LCP:    MagicNumber 0x314EFEBB (0x0506314EFEBB)
*Mar  1 05:38:06.782: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:06.782: As65 LCP:    ACFC (0x0802)
*Mar  1 05:38:08.782: As65 LCP: TIMEout: State REQsent
*Mar  1 05:38:08.782: As65 LCP: O CONFREQ [REQsent] id 45 len 20
*Mar  1 05:38:08.782: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:08.782: As65 LCP:    MagicNumber 0x314EFEBB (0x0506314EFEBB)
*Mar  1 05:38:08.782: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:08.782: As65 LCP:    ACFC (0x0802)
!--- Observe that two outgoing CONFREQs timed out. !--- If you observe such a situation with no
incoming CONFREQs, verify that the !--- autoselect ppp or async mode dedicated commands are
configured !--- on the router that receives the call.
```

```
*Mar  1 05:38:08.934: As65 LCP: I CONFREQ [REQsent] id 2 len 25
*Mar  1 05:38:08.934: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:08.934: As65 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 05:38:08.934: As65 LCP:    MagicNumber 0x515A1AC7 (0x0506515A1AC7)
*Mar  1 05:38:08.938: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:08.938: As65 LCP:    ACFC (0x0802)
*Mar  1 05:38:08.938: As65 LCP: O CONFACK [REQsent] id 2 len 25
*Mar  1 05:38:08.938: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:08.938: As65 LCP:    AuthProto CHAP (0x0305C22305)
*Mar  1 05:38:08.938: As65 LCP:    MagicNumber 0x515A1AC7 (0x0506515A1AC7)
*Mar  1 05:38:08.938: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:08.938: As65 LCP:    ACFC (0x0802)
*Mar  1 05:38:08.942: As65 LCP: I CONFACK [ACKsent] id 45 len 20
*Mar  1 05:38:08.946: As65 LCP:    ACCM 0x000A0000 (0x0206000A0000)
*Mar  1 05:38:08.946: As65 LCP:    MagicNumber 0x314EFEBB (0x0506314EFEBB)
*Mar  1 05:38:08.946: As65 LCP:    PFC (0x0702)
*Mar  1 05:38:08.946: As65 LCP:    ACFC (0x0802)
*Mar  1 05:38:08.946: As65 LCP: State is Open
```

*Mar 1 05:38:08.946: As65 **PPP: Phase is AUTHENTICATING**, by the peer
*Mar 1 05:38:09.066: As65 CHAP: I CHALLENGE id 1 len 32 from "maui-nas-03"
*Mar 1 05:38:09.066: As65 CHAP: O RESPONSE id 1 len 32 from "maui-slt-01"
*Mar 1 05:38:09.206: **As65 CHAP: I SUCCESS** id 1 len 4

!--- CHAP authentication is successful. *Mar 1 05:38:09.206: As65 PPP: Phase is UP *Mar 1 05:38:09.210: As65 IPCP: O CONFREQ [Not negotiated] id 13 len 10 *Mar 1 05:38:09.210: As65 IPCP: Address 172.17.1.1 (0x0306AC110101) *Mar 1 05:38:09.218: As65 IPCP: I CONFREQ [REQsent] id 1 len 10 *Mar 1 05:38:09.218: As65 IPCP: Address 172.22.1.1 (0x0306AC160101) *Mar 1 05:38:09.218: As65 IPCP: O CONFACK [REQsent] id 1 len 10 *Mar 1 05:38:09.218: As65 IPCP: Address 172.22.1.1 (0x0306AC160101) *Mar 1 05:38:09.350: As65 IPCP: I CONFNAK [ACKsent] id 13 len 10 *Mar 1 05:38:09.350: As65 IPCP: Address 172.22.1.9 (0x0306AC160109) *Mar 1 05:38:09.350: As65 IPCP: O CONFREQ [ACKsent] id 14 len 4 *Mar 1 05:38:09.478: As65 IPCP: I CONFACK [ACKsent] id 14 len 4 *Mar 1 05:38:09.478: **As65 IPCP: State is Open**

!--- IPCP negotiation is complete. *Mar 1 05:38:09.482: As65 DDR: dialer protocol up *Mar 1 05:38:09.482: Di10 IPCP: Install route to 172.22.1.1 *Mar 1 05:38:10.206: %LINEPROTO-5-UPDOWN: Line protocol on **Interface Async65,**
 changed state to up
!--- Interface is up.

相关信息

- [调制解调器与路由器连接指南](#)
- [拨号和接入技术支持](#)
- [技术支持和文档 - Cisco Systems](#)