

使用AUX 端口上的调制解调器配置拨出

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简介

本文显示如何使用在Aux端口的一个调制解调器配置拨出。在此方案中，一个路由器用在Aux端口的一个调制解调器拨号主速率接口中心站点路由器。

注意：我们不表示一备份方案，然而仅仅显示在路由器之间的按需拨号路由(DDR)拨号用在Aux端口的一个调制解调器。

先决条件

要求

在尝试此配置前，请保证您了解用在Aux端口的调制解调器关联的多种问题。关于这些问题的更多信息，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软件版本12.1(2)的Cisco 2600系列路由器。
- 运行Cisco IOS软件版本12.0(7)T的Cisco AS5300路由器。

注意：此配置可以应用到所有路由器用Aux端口甚至控制台端口。然而，由于RS232调制解调器控

制问题和一些与安全相关的问题，没有推荐附加调制解调器到控制台端口。欲知更多信息，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

有关文档规则的详细信息，请参阅[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。

注意：要查找本文档所用命令的其他信息，请使用[命令查找工具](#)（[仅限注册用户](#)）。

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，毛伊SLT01(2600)，使用在Aux端口的调制解调器拨号PRI maui-nas-03 (AS5300)。NAS (maui-nas-03)配置发送呼叫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没有特别配置接受仅呼叫从maui-slt-01(the客户端)。从NAS角度看(maui-nas-03)，呼入呼叫是另一个拨入客户端。此配置可以用于许多远程客户端拨号中心站点NAS的PRI，并且连接对公司网络。

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

请使用**show ip route**命令验证是否有路由对拨号程序或异步接口。如果没有对异步或拨号接口正在拨号的路由不能发生。所以，请如所需要配置静态路由。

```

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：有默认路由对拨号接口。

路由器启动拨号，连接，然后协商PPP，并且交换OSPF数据库。欲了解更详细的信息在此进程请参阅跟随的调试信息：

在连接是成功的后，请使用**show ip route**命令。在此方案中，使用路由协议OSPF。观察OSPF路由被添加到路由表。

```
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

完成这些步骤设置外置调制解调器和验证调制解调器正确地作用。当您验证时路由器能在此调制解调器帮助下拨号和连接，必要的DDR配置以及PPP配置和其他高水平协议配置在拨号的路由器可以被执行。此部分假设，收到呼叫的路由器正确地配置，如上所述。

1. 连接从Aux端口的适当电缆到调制解调器。关于布线选项的更多信息，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，Aux端口是线路17。在这种情况下，必须在 **interface async 17** 上配置 AUX 端口。根据 **show line** 输出配置 AUX 端口。此示例在maui-slt-01 AUX端口配置验证那在接口Async65。

```
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. 配置调制解调器的一modemcap连接对Aux端口。参考能将用于调制解调器平台适当的初始化字符串的[调制解调器-路由器连接指南](#)。创建包括该初始化的一新的modemcap (init)字符串。这是一新的modemcap的(已命名MY_USR_MODEM)一示例：

```
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:

1-64

在上述modemcap配置中&F1S0=1是初始字符串。参考[创建Modemcap](#)关于初始字符串的具体信息适当为您的调制解调器。

4. 应用modemcap到Aux端口。我们以前验证Aux端口在线路65。

```
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:

1-64

您应该也配置调制解调器连通性的AUX端口线路。关于line configuration的信息，参考[调制解调器-路由器连接指南](#)。maui-slt-01显示的配置示例以前也包括必要的命令。请使用**debug confmodem**验证modemcap是否正确地应用。在您重新通电调制解调器后，路由器自动地配置调制解调器。

```
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。验证所有信号是UP。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no在他们旁边出现(例如，没有CTS)，含义他们发生故障。如果他们发生故障，请验证电缆和配置在路由器。并且请证实您是否有异步接口和正确地配置的Aux端口的线路。关于布线的更多信息，参考[调制解调器路由器连接指南](#)。关于如何排除故障问题的信息，请使用在[故障排除拨入连接](#)的本文。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 00000000000000001010000000000000
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reverse Telnet调制解调器的Aux端口，和使用AT命令集手工拨号和连接到远程设备。这可以用于验证调制解调器硬件和电话线路正常运行。在本例中，因为Aux端口在线路65，您必须倒转telnet到路由器的端口2065。关于参考的反向Telnet的更多信息[建立一反向远程登录会话对调制解调器](#)。

```
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.
```

如上所述，我们执行反向Telnet到调制解调器，并且使用at命令验证调制解调器是否回应。当您接收OK时，请在atdt number命令帮助下拨号远端号码。呼叫进行，并且连接到远程设备。远程路由器然后验证呼入呼叫。如果注意到外置调制解调器不拨号，请验证布线正确，外置调制解调器没有故障，并且电话线路是活跃的。参考[配置调制解调器支持和其他异步功能](#)和[排除故障拨入连接](#)欲知更多信息。当您完成上述任务和步骤时，您能继续测试路由器是否能自动地启动拨号连接。参考[theConfiguring Dialout的](#)Show输出示例和Debug输出示例部分[使用在Aux端口](#)文档的[一个调制解调器](#)欲知更多信息。

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 ? ? ? 显示关于在拨号接口接收的数据包的调试信息。当DDR在接口时启用，关系到所有呼叫的原因的信息(呼叫拨号原因)也显示。欲知更多信息，请参阅debug dialer命令在[调试cls -请调试fras](#)。
- debug modem ? ? ? 显示调制解调器线路活动、调制解调器控制和进程激活消息在路由器。

- **debug chat** ? ? ? 当async/POTS拨号启动时，监控对话脚本的执行。参考[异步呼出电话-验证对话脚本拨号技术的操作部分：故障排除技术](#)。
- **debug ppp协商** ? ? ? 显示关于PPP流量的信息和交换，当协商PPP组件例如，链路控制协议(LCP)、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认证协议消息，那包括质询验证协议(CHAP)信息包交换和密码认证协议交换。

调试输出示例

请使用这些调试指令排除故障连接：

```
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](#)