配置用 Dialer Watch的 AUX 端口间异步备份

目录

简介

本文档提供有关使用拨号器监视功能为串行、WAN或租用线路链路配置按需拨号路由(DDR)备份的信息。备用链路在两台路由器的AUX端口上使用调制解调器。当主链路断开时，拨号器监视使用AUX端口上的调制解调器启动备份拨出。

先决条件

要求

本文档假设您对AUX端口上调制解调器的各种问题有充分的了解。如果需要有关这些问题的详细信息，请参阅文档调制解调器 — 路由器连接指南和在AUX端口上使用调制解调器配置拨出，然后再继续本文档。

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 两个Cisco 2600，带US Robotics调制解调器，连接到AUX端口。两台路由器都运行Cisco IOS®软件版本12.1(2)。

建议您使用Cisco IOS 12.1(7)版或更高版本，其中包括对影响拨号器监视的IOS错误的修复。

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”。

背景理论

此场景包括在AUX端口上使用调制解调器配置拨入和拨出，以及使用拨号器监视配置DDR备份。有关拨号器监视功能的详细信息，请参阅评估备份接口、浮动静态路由和DDR备份的拨号器监视。

有关如何配置和排除拨号器监视故障的信息，请参阅使用BRI和拨号器监视配置DDR备份。拨号器监视所涉及的概念与所使用的介质无关，因此该文档对拨号器监视问题非常有用。

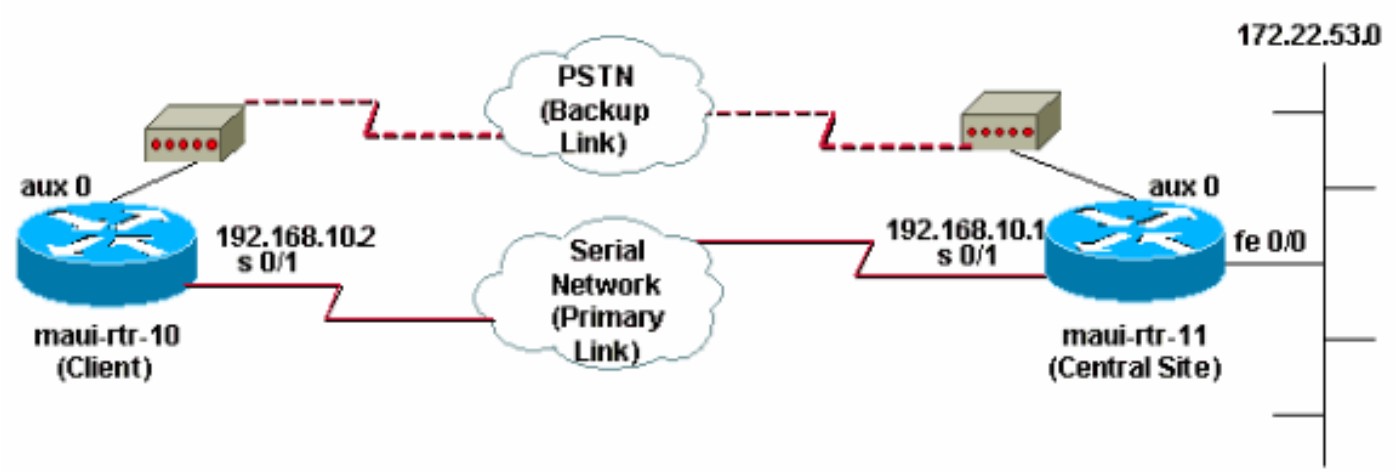
配置

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

本文档使用此图中所示的网络设置：



配置

在此配置中，maui-rtr-10（客户端）通过串行链路连接到maui-rtr-11（中心站点）。 两台路由器还将外部US Robotics调制解调器连接到AUX端口并用作备份。当主链路断开时，dialer watch会启动备份链路，maui-rtr-10会拨打中心站点路由器、连接、协商PPP并交换开放最短路径优先(OSPF)路由信息。路由器之间的所有流量现在都使用备份连接。重新建立主链路后，路由表会更新，所有流量都会再次使用主链路。由于备份链路上没有流量，因此空闲超时过期，拨号程序观察会断开备份链路。

maui-rtr-10（客户端）

```
maui-rtr-10#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-rtr-10
!
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-rtr-11 password 0 cisco !---
Username for remote router (maui-rtr-11) and shared
secret !--- password. Shared secret (used for Challenge
Handshake Authentication !--- Protocol [CHAP]
authentication) must be the same on both sides. ! ip
subnet-zero ! chat-script Dialout ABORT ERROR ABORT BUSY
"" "AT" OK "ATDT \T" TIMEOUT 45 CONNECT \c !--- Chat
script named "Dialout" is used for the backup dialout.
modemcap entry MY_USR_MODEM:MSC=&F1S0;=1 !--- Modemcap
named "MY_USR_MODEM" will be applied to the AUX !---
port line interface. This modemcap was created with the
!--- modemcap edit MY_USR_MODEM miscellaneous &F1S0;=1
command !--- Refer to the Modem-Router Connection Guide
for more information. ! interface Loopback0 ip address
172.17.1.1 255.255.255.0 ! interface Ethernet0/0 ip
address 172.16.1.1 255.255.255.0 no keepalive !
interface Serial0/0 no ip address shutdown no fair-queue
! interface Serial0/1 !--- This is the primary link. ip
address 192.168.10.2 255.255.255.252 encapsulation ppp
clockrate 64000 ppp authentication chap ! interface
Async65 !--- Async interface corresponding to the AUX
Port (backup link). !--- This was determined using the
show line command.

 ip unnumbered Loopback0
!--- This assigns the Loopback 0 IP address to this
interface. !--- The central router will have a dialer
map to this loopback address. encapsulation ppp dialer
in-band !--- Allow DDR on this interface. dialer idle-
timeout 30 !--- Idle timeout (in seconds) for this link.
!--- Dialer watch checks the status of the primary link
!--- every time the idle-timeout expires. dialer watch-
disable 15 !--- Delays disconnection of the backup
interface (for 15 seconds) after !--- the primary
interface is found to be up. dialer map ip 172.22.1.1
name maui-rtr-11 broadcast 84007 !--- Dialer map for the
AUX Port interface of the central router. !--- Remember
that the central router's AUX port is unnumbered to its
Loopback 0. dialer map ip 172.22.53.0 name maui-rtr-11
broadcast 84007 !--- Map statement for the route or
network being watched. !--- Address must exactly match
the network configured with !--- the dialer watch-list
command. !--- Dials the phone number specified when the
watched route disappears.

 dialer watch-group 8
```

```
!--- Enable dialer watch on this backup interface. !---
Watch the route specified with dialer watch-list 8.

 dialer-group 1
!--- Apply interesting traffic defined in dialer-list 1.
async default routing !--- Permit routing over the async
interface. !--- This is required for a routing protocol
to run across the async link. async mode interactive ppp
authentication chap ! 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 192.168.10.0 0.0.0.3 area 0 ! ip classless no ip
http server ! access-list 101 remark Define Interesting
Traffic access-list 101 deny ospf any any !--- Mark OSPF
as uninteresting. !--- This prevents OSPF hellos from
keeping the link up. access-list 101 permit ip any any !
dialer watch-list 8 ip 172.22.53.0 255.255.255.0 !---
Define the route to be watched. !--- This exact route
(including subnet mask) must exist in the routing table.
dialer-list 1 protocol ip list 101 !--- Interesting
traffic is defined by access-list 101. !--- This is
applied to BRI0 using dialer-group 1.

!
line con 0
 login authentication NO_AUTHEN
 transport input none
line Aux 0
!--- Line configuration for the AUX port. exec-timeout 0
0 !--- Disable exec timeout on the interface. autoselect
ppp script dialer Dialout !--- Use the chat script named
"Dialout" for outgoing calls. modem InOut !--- Enable
incoming and outgoing calls. modem autoconfigure type
MY_USR_MODEM !--- Apply the modemcap MY_USR_MODEM
(configured previously) !--- to initialize the modem.
transport input all stopbits 1 !--- Improve throughput
by reducing async framing overhead. speed 115200 !---
AUX port on the 2600 supports a speed of 115200. !---
Note: If you are routing through the AUX port, each
character generates a !--- processor interrupt. This is
an abnormally high load on the CPU, which can be !---
resolved by using a lower AUX port speed. flowcontrol
hardware !--- This configures Ready To Send/Clear To
Send (RTS/CTS) flow control. line vty 0 4 ! no scheduler
allocate end
```

maui-rtr-11（中心站点）

```
maui-rtr-11#show running-config
Building configuration...

Current configuration:
!
version 12.1
service timestamps debug uptime
service timestamps log uptime
no service password-encryption
!
hostname maui-rtr-11
!
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-rtr-10 password 0 cisco !---
Username for remote router (maui-rtr-10) and shared
secret. !--- Shared secret (used for CHAP
authentication) must be the same on both sides. !
memory-size iomem 30 ! ip subnet-zero ! modemcap entry
MY_USR_MODEM:MSC=&F1S0;=1 !--- Modemcap (MY_USR_MODEM)
will be applied to the AUX port line interface. !---
This modemcap was created with the command !--- modemcap
edit MY_USR_MODEM miscellaneous &F1S0;=1 !--- Refer to
the Modem-Router Connection Guide for more information.
! interface Loopback0 ip address 172.22.1.1
255.255.255.0 ! interface FastEthernet0/0 !--- Interface
to corporate network. ip address 172.22.53.105
255.255.255.0 no keepalive duplex auto speed auto ! !---
Irrelevant output removed here. ! interface Serial0/1 !-
-- This is the primary link. ip address 192.168.10.1
255.255.255.252 encapsulation ppp ppp authentication
chap ! interface Serial0/2 no ip address shutdown !
interface Async65 !--- Async interface corresponding to
the AUX Port (backup link). !--- This was determined
using the show line command.

 ip unnumbered Loopback0
!--- Use Loopback 0 address for this interface. !--- The
remote router will have a dialer map to this loopback
address. encapsulation ppp dialer in-band dialer idle-
timeout 900 dialer map ip 172.17.1.1 name maui-rtr-10
broadcast !--- Dialer map for the AUX Port interface of
the remote router. !--- Remember that the remote router
AUX port is unnumbered to its Loopback 0. dialer-group 1
!--- Apply interesting traffic defined in dialer-list 1.
async default routing !--- Permit routing over the async
interface. !--- This is required for a routing protocol
to run across the async link. async mode interactive !--
- Requires autoselect PPP under the line configuration
PPP to be negotiated. !--- This command may be replaced
with async mode dedicated.

 no peer default ip address
!--- Do not assign the peer an IP address. ppp
authentication chap ! 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
network 192.168.10.0 0.0.0.3 area 0 ! ip classless no ip
http server ! dialer-list 1 protocol ip permit !--- Mark
all IP traffic as interesting. !--- This interesting
traffic definition is applied to BRI0 !--- using dialer-
group 1.

!
!
line con 0
 login authentication NO_AUTHEN
 transport input none
line aux 0
!--- AUX Port line configuration. autoselect ppp !---
Launch PPP negotiation when PPP packets are received. !-
-- If the Async Interface has async mode dedicated, !---
this command is not needed.

 modem InOut
!--- Enable incoming and outgoing calls. modem
autoconfigure type MY_USR_MODEM !--- Apply the modemcap
```

```
MY_USR_MODEM that was configured previously. transport
input all stopbits 1 !--- Improve throughput by reducing
async framing overhead. speed 115200 !--- AUX port on
the 2600 supports a speed of 115200. flowcontrol
hardware !--- Configures RTS/CTS flow control. line vty
0 4 ! no scheduler allocate end
```

验证

本部分提供的信息可帮助您确认您的配置是否可正常运行。

某些show命令受输出解释器工具的支持(只用于注册的用户)，允许您查看对show命令输出的分析。

show 输出示例

具有主链路功能的客户端(maui-rtr-10)的路由表如下所示：

```
maui-rtr-10#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 not set

     192.168.10.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.10.0/30 is directly connected, Serial0/1
C       192.168.10.1/32 is directly connected, Serial0/1
     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, Ethernet0/0
     172.22.0.0/16 is variably subnetted, 2 subnets, 2 masks
O       172.22.53.0/24 [110/65] via 192.168.10.1, 00:00:57, Serial0/1
O       172.22.1.1/32 [110/65] via 192.168.10.1, 00:00:59, Serial0/1
```

上面**show ip route**命令输出显示了使用主链路(serial 0/1)从对等体获取的OSPF路由。 注意，路由表中存在被监视的路由（掩码为255.255.255.0的172.22.53.0）。必须验证这一点，拨号器监视才能正常运行。

现在主链路已关闭，拨号器监视激活备用链路。

激活备用链路后，交换OSPF表，并安装使用备用链路的新路由。流量现在通过备用链路。相应示例如下：

```
maui-rtr-10#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 not set

     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, Ethernet0/0
     172.22.0.0/16 is variably subnetted, 2 subnets, 2 masks
O       172.22.53.0/24 [110/870] via 172.22.1.1, 00:00:11, Async65
C       172.22.1.1/32 is directly connected, Async65
```

上述输出显示路由表已更新，且受监视网络的所有流量现在都使用备份链路(Async 65)。

故障排除

本部分提供的信息可用于对配置进行故障排除。

故障排除命令

某些show命令受输出解释器工具的支持(只用于注册的用户)，允许您查看对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** — 显示有关在拨号器接口上接收的数据包的调试信息。在接口上启用DDR时，还会显示有关任何呼叫原因（称为拨号原因）的信息。有关详细信息，请参阅**Debug Commands文档**中的debug dialer信息。
- **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** — 在启动异步/POTS拨号时监控聊天脚本的执行。请参阅拨号技术：故障排除技术。
- **debug ppp negotiation** — 在协商PPP组件(包括链路控制协议(LCP)、身份验证和网络控制协议(NCP))时显示有关PPP流量和交换的信息。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

以下调试输出显示主链路发生故障，拨号器观察识别丢失的路由。然后，路由器启动备用链路。在拨号器空闲超时到期后，路由器检查主链路是否关闭。当重新建立主链路时，拨号器监视会在禁用计时器到期后断开备用链路。查看调试时，请注意每条消息中的时间戳，因为它们可以提供有关活动的各种计时器和空闲超时的信息。

```
maui-rtr-10#debug dialer
Dial on demand events debugging is on
maui-rtr-10#debug chat
Chat scripts activity debugging is on
maui-rtr-10#debug modem
Modem control/process activation debugging is on
maui-rtr-10#debug ppp negotiation
PPP protocol negotiation debugging is on
maui-rtr-10#debug ppp authentication
PPP authentication debugging is on
maui-rtr-10#
```

maui-rtr-10#
maui-rtr-10#
maui-rtr-10#
maui-rtr-10#
*Mar 3 17:00:28.136: %LINK-3-UPDOWN: **Interface Serial0/1, changed state to down**
!--- Primary link is brought down. *Mar 3 17:00:28.140: Se0/1 IPCP: State is Closed *Mar 3 17:00:28.140: Se0/1 CDPCP: State is Closed *Mar 3 17:00:28.140: Se0/1 PPP: Phase is TERMINATING *Mar 3 17:00:28.140: Se0/1 LCP: State is Closed *Mar 3 17:00:28.140: Se0/1 PPP: Phase is DOWN *Mar 3 17:00:28.144: Se0/1 IPCP: Remove route to 192.168.10.1 *Mar 3 17:00:28.252: DDR: **Dialer Watch: watch-group = 8**
!--- Use dialer watch-group 8. *Mar 3 17:00:28.252: DDR: network 172.22.53.0/255.255.255.0 DOWN, *Mar 3 17:00:28.252: DDR: **primary DOWN**
!--- The primary network is down. *Mar 3 17:00:28.252: DDR: Dialer Watch: **Dial Reason: Primary of group 8 DOWN**
!--- Dial reason is that the primary route is down. *Mar 3 17:00:28.252: DDR: Dialer Watch: watch-group = 8, *Mar 3 17:00:28.252: DDR: dialing secondary by **dialer map 172.22.53.0 on As65**
!--- Indicates which dialer map statement is used for the dialout. !--- Dialout will occur on AS 65 (the AUX Port). *Mar 3 17:00:28.252: As65 DDR: **Attempting to dial 84007**
!--- Number being dialed for the backup link. *Mar 3 17:00:28.252: CHAT65: Attempting async line dialer script *Mar 3 17:00:28.256: **CHAT65: Dialing using Modem script: Dialout**
 & System script: none
 !--- Using chat script "Dialout". *Mar 3 17:00:28.268: CHAT65: process started *Mar 3 17:00:28.273: CHAT65: Asserting DTR *Mar 3 17:00:28.273: TTY65: Set DTR to 1 *Mar 3 **17:00:28**.273: CHAT65: Chat script Dialout started
!--- Chat script "Dialout" starts. *Mar 3 17:00:28.273: CHAT65: Sending string: AT *Mar 3 17:00:28.273: CHAT65: Expecting string: OK *Mar 3 17:00:28.433: CHAT65: Completed match for expect: OK *Mar 3 17:00:28.433: CHAT65: Sending string: ATDT \T<84007> *Mar 3 17:00:28.433: CHAT65: Expecting string: CONNECT *Mar 3 17:00:29.138: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1, changed state to down *Mar 3 17:00:42.560: CHAT65: Completed match for expect: CONNECT *Mar 3 17:00:42.560: CHAT65: Sending string: \c *Mar 3 **17:00:42**.560: CHAT65: Chat script
Dialout finished, status = Success
!--- Chat script is successful. !--- Notice the Expect/Send Attributes and the time elapsed.
*Mar 3 17:00:42.564: TTY65: destroy timer type 1 *Mar 3 17:00:42.564: TTY65: destroy timer type 0 *Mar 3 17:00:42.568: As65 IPCP: Install route to 172.22.53.0 *Mar 3 17:00:44.567: %LINK-3-UPDOWN: Interface Async65, changed state to up Dialer statechange to up Async65 *Mar 3 17:00:44.571: As65 DDR: Dialer Watch: resetting call in progress Dialer call has been placed Async65 *Mar 3 17:00:44.571: As65 PPP: Treating connection as a callout *!--- PPP negotiation begins.* *Mar 3 17:00:44.571: As65 PPP: Phase is ESTABLISHING, Active Open *Mar 3 17:00:44.571: As65 LCP: O CONFREQ [Closed] id 11 len 25 *Mar 3 17:00:44.571: As65 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 3 17:00:44.575: As65 LCP: AuthProto CHAP (0x0305C22305) *Mar 3 17:00:44.575: As65 LCP: MagicNumber 0x103EC1ED (0x0506103EC1ED) *Mar 3 17:00:44.575: As65 LCP: PFC (0x0702) *Mar 3 17:00:44.575: As65 LCP: ACFC (0x0802) *Mar 3 17:00:46.575: As65 LCP: TIMEout: State REQsent *Mar 3 17:00:46.575: As65 LCP: O CONFREQ [REQsent] id 12 Len 25 *Mar 3 17:00:46.575: As65 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 3 17:00:46.575: As65 LCP: AuthProto CHAP (0x0305C22305) *Mar 3 17:00:46.575: As65 LCP: MagicNumber 0x103EC1ED (0x0506103EC1ED) *Mar 3 17:00:46.575: As65 LCP: PFC (0x0702) *Mar 3 17:00:46.575: As65 LCP: ACFC (0x0802) *Mar 3 17:00:46.703: As65 LCP: I CONFACK [REQsent] id 12 Len 25 *Mar 3 17:00:46.707: As65 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 3 17:00:46.707: As65 LCP: AuthProto CHAP (0x0305C22305) *Mar 3 17:00:46.707: As65 LCP: MagicNumber 0x103EC1ED (0x0506103EC1ED) *Mar 3 17:00:46.707: As65 LCP: PFC (0x0702) *Mar 3 17:00:46.707: As65 LCP: ACFC (0x0802) *Mar 3 17:00:46.715: As65 LCP: I CONFREQ [ACKrcvd] id 21 Len 25 *Mar 3 17:00:46.715: As65 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 3 17:00:46.715: As65 LCP: AuthProto CHAP (0x0305C22305) *Mar 3 17:00:46.719: As65 LCP: MagicNumber 0x30CB092E (0x050630CB092E) *Mar 3 17:00:46.719: As65 LCP: PFC (0x0702) *Mar 3 17:00:46.719: As65 LCP: ACFC (0x0802) *Mar 3 17:00:46.719: As65 LCP: O CONFACK [ACKrcvd] id 21 Len 25 *Mar 3 17:00:46.719: As65 LCP: ACCM 0x000A0000 (0x0206000A0000) *Mar 3 17:00:46.719: As65 LCP: AuthProto CHAP (0x0305C22305) *Mar 3 17:00:46.723: As65 LCP: MagicNumber 0x30CB092E (0x050630CB092E) *Mar 3 17:00:46.723: As65 LCP: PFC (0x0702) *Mar 3 17:00:46.723: As65 LCP: ACFC (0x0802) *Mar 3 17:00:46.723: As65 LCP: State is Open *Mar 3 17:00:46.723: As65 PPP: **Phase is AUTHENTICATING, by both**
!--- Two-way PPP CHAP authentication begins. *Mar 3 17:00:46.723: As65 CHAP: O CHALLENGE id 7 Len 32 from "maui-rtr-10" *Mar 3 17:00:46.847: As65 CHAP: I CHALLENGE id 7 Len 32 from "maui-rtr-11" *Mar 3 17:00:46.851: As65 CHAP: O RESPONSE id 7 Len 32 from "maui-rtr-10" *Mar 3

17:00:46.967: As65 **CHAP: I SUCCESS** id 7 Len 4
*Mar 3 17:00:46.971: As65 CHAP: I RESPONSE id 7 Len 32 from "maui-rtr-11"
*Mar 3 17:00:46.975: As65 **CHAP: O SUCCESS** id 7 Len 4
!--- Incoming and Outgoing CHAP authentication are successful. *Mar 3 17:00:46.975: As65 PPP: Phase is UP *Mar 3 17:00:46.979: As65 IPCP: O CONFREQ [Closed] id 8 Len 10 *!--- IP Control Protocol (IPCP) negotiation begins.* *Mar 3 17:00:46.979: As65 IPCP: Address 172.17.1.1 (0x0306AC110101) *Mar 3 17:00:46.979: As65 CDPCP: O CONFREQ [Closed] id 7 Len 4 *Mar 3 17:00:47.087: As65 IPCP: I CONFREQ [REQsent] id 7 Len 10 *Mar 3 17:00:47.091: As65 IPCP: Address 172.22.1.1 (0x0306AC160101) *Mar 3 17:00:47.091: As65 IPCP: O CONFACK [REQsent] id 7 Len 10 *Mar 3 17:00:47.091: As65 IPCP: Address 172.22.1.1 (0x0306AC160101) *Mar 3 17:00:47.095: As65 CDPCP: I CONFREQ [REQsent] id 7 Len 4 *Mar 3 17:00:47.095: As65 CDPCP: O CONFACK [REQsent] id 7 Len 4 *Mar 3 17:00:47.099: As65 IPCP: I CONFACK [ACKsent] id 8 Len 10 *Mar 3 17:00:47.099: As65 IPCP: Address 172.17.1.1 (0x0306AC110101) *Mar 3 17:00:47.099: As65 IPCP: State is Open *Mar 3 17:00:47.103: As65 DDR: dialer protocol up *Mar 3 17:00:47.103: As65 IPCP: Remove route to 172.22.53.0 *Mar 3 17:00:47.103: As65 CDPCP: I CONFACK [ACKsent] id 7 Len 4 *Mar 3 17:00:47.107: As65 CDPCP: State is Open *Mar 3 17:00:47.107: As65 IPCP: Install route to 172.22.1.1 *Mar 3 17:00:47.708: %LINEPROTO-5-UPDOWN: **Line protocol on Interface Async65,**
changed state to up
!--- Async 65 (AUX Port) is UP. *Mar 3 17:01:14.572: **As65 DDR: idle timeout***
!--- Idle timeout expires. !--- The router will check to see if the primary link has come up.
*Mar 3 17:01:14.572: DDR: Dialer Watch: watch-group = 8 *Mar 3 17:01:14.572: DDR: **network 172.22.53.0/255.255.255.0 UP,***
!--- A route for the watched network exists (due to the active backup link). *Mar 3 17:01:14.572: DDR: **primary DOWN***
!--- The primary network is down. *Mar 3 17:02:05.191: **As65 DDR: idle timeout***
!--- Idle Timeout expires. !--- The router will check to see if the primary link has come up.
*Mar 3 17:02:05.191: DDR: Dialer Watch: watch-group = 8 *Mar 3 17:02:05.191: DDR: network 172.22.53.0/255.255.255.0 UP, *Mar 3 17:02:05.191: DDR: **primary DOWN***
!--- The primary network is still down. *Mar 3 17:02:50.982: %LINK-3-UPDOWN: **Interface Serial0/1,**
changed state to up*
!--- Primary link is reestablished. *Mar 3 17:02:50.986: Se0/1 PPP: Treating connection as a dedicated line *Mar 3 17:02:50.986: Se0/1 PPP: Phase is ESTABLISHING, Active Open ... ... *!--- Primary link PPP negotiation output omitted.* ... *Mar 3 17:02:51.039: Se0/1 IPCP: **Install route to 192.168.10.1***
*Mar 3 17:02:52.020: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0/1,
 changed state to up
*Mar 3 17:03:05.194: As65 DDR: idle timeout
!--- Next Idle Timeout expires. !--- The router will check to see if the primary link has come up. *Mar 3 17:03:05.194: DDR: Dialer Watch: watch-group = 8 *Mar 3 17:03:05.194: DDR: network 172.22.53.0/255.255.255.0 UP, *Mar 3 **17:03:05**.194: DDR: **primary DOWN***
!--- Dialer watch considers the primary network still down. !--- Even though the primary link is "up," the OSPF table has not yet been exchanged. !--- The primary link is not considered up until the route is installed. *Mar 3 **17:03:35**.195: **As65 DDR: idle timeout***
!--- Next idle timeout (30 seconds) expires. !--- The router will check to see if the primary link has come up. *Mar 3 17:03:35.195: DDR: Dialer Watch: watch-group = 8 *Mar 3 17:03:35.195: DDR: network 172.22.53.0/255.255.255.0 UP, *!--- A route for the watched network exists.* *Mar 3 17:03:35.195: DDR: **primary UP***
!--- The primary network is up. !--- Dialer watch will initiate a disconnect of the backup link.
*Mar 3 **17:03:35**.195: As65 DDR: **starting watch disable timer***
!--- Delays disconnecting the backup interface after the primary !--- interface recovers. This timer is 15 seconds as configured !--- with the command **dialer watch-disable 15**.

*Mar 3 **17:03:50**.196: As65 DDR: **watch disable timeout***
!--- The 15 second disconnect delay expires. !--- The link will be immediately brought down.
*Mar 3 17:03:50.196: **As65 DDR: disconnecting call***
!--- Call on Async 65 (AUX Port) is disconnected. *Mar 3 17:03:50.196: TTY65: Async Int reset: Dropping DTR ... ... *!--- Link tear-down messages omitted here.* ... *Mar 3 17:03:57.203: %LINK-3-UPDOWN: **Interface Async65, changed state to down***

相关信息

- 调制解调器与路由器连接指南
- 拨号技术支持页面
- 技术支持 - Cisco Systems