

links múltiples mediante una plantilla virtual en dos interfaces seriales

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Introducción

Multilink PPP (MLP) equilibra la carga en las interfaces del marcador, como por ejemplo, las interfaces de ISDN, sincrónica y asincrónica. MLP reparte los paquetes y envía los fragmentos a través de circuitos paralelos. De esta manera, MLP mejora la producción y reduce el tiempo de espera entre los sistemas. MLP proporciona un método para repartir, recombinar y establecer secuencias de datagramas a través de los links de datos lógicos múltiples. MLP permite que los paquetes se fragmenten y que los fragmentos se envíen a la vez a través de varios links punto a punto a la misma dirección remota.

Este documento ilustra una conexión de links múltiples entre las interfaces seriales con la configuración de plantilla virtual.

prerrequisitos

Requisitos

No hay requisitos específicos para este documento.

Componentes Utilizados

La información que contiene este documento se basa en las siguientes versiones de software y hardware.

- Versión 11.2 o más reciente del software IOS® de Cisco.
- Dos Cisco 2503 Router, que tienen dos interfaces seriales PÁLIDAS cada uno. Cisco IOS Software Release 12.2(7b) del funcionamiento de este Routers.

La información que contiene este documento se creó a partir de los dispositivos en un ambiente de laboratorio específico. Todos los dispositivos que se utilizan en este documento se pusieron en funcionamiento con una configuración verificada (predeterminada). Si la red está funcionando, asegúrese de haber comprendido el impacto que puede tener cualquier comando.

Productos Relacionados

Esta configuración se puede también utilizar con estas versiones de software y hardware.

- Cualquier dos Routers que tenga dos interfaces seriales PÁLIDAS. Usted puede utilizar el WIC-1T, el WIC-2T y las interfaces seriales PÁLIDAS fijas.

Convenciones

Consulte [Convenciones de Consejos TécnicosCisco](#) para obtener más información sobre las convenciones del documento.

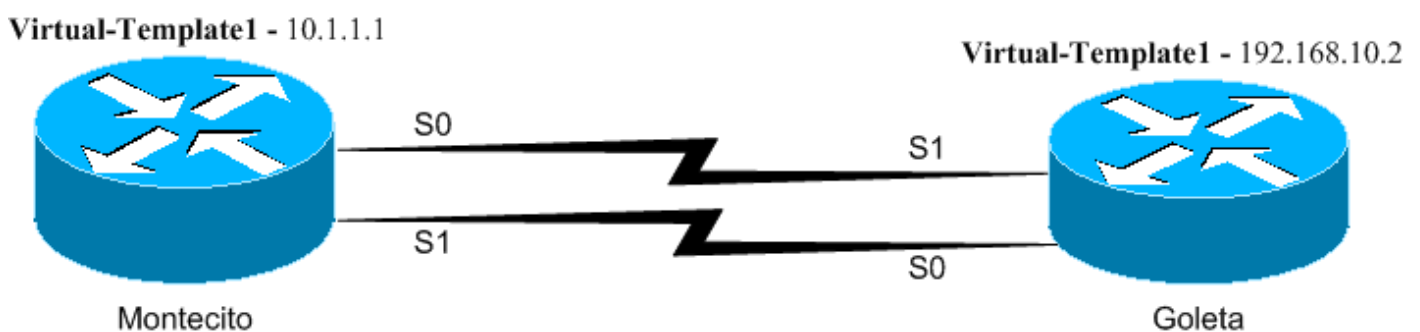
Configurar

En esta sección encontrará la información para configurar las funciones descritas en este documento.

Nota: Use la herramienta [Command Lookup Tool](#) ([clientes registrados solamente](#)) para encontrar más información sobre los comandos usados en este documento.

Diagrama de la red

En este documento, se utiliza esta configuración de red:



Los routers Montecito y Goleta están adosados a través de las interfaces Serial0 y Serial1. Esta configuración utiliza una Virtual-plantilla en cada lado, el protocolo multilink point-to-point (PPP), y interliga y rutea el IP y el IPX entre el Routers.

Configuraciones

En este documento, se utilizan estas configuraciones:

- [Montecito](#)
- [Goleta](#)

Montecito

```
Montecito#write terminal Building configuration...
Current configuration : 945 bytes ! version 12.2 service
timestamps debug uptime service timestamps log uptime no
service password-encryption ! hostname Montecito ! boot
system flash c2500-d-1.122-7b.bin no logging buffered !
ip subnet-zero no ip domain-lookup ! ! multilink
virtual-template 1 !--- Applies the virtual interface
template to the multilink bundle. !--- All multilink
calls have virtual-access interfaces cloned !--- from
virtual-template 1. ! ipx routing 0000.0c31.aac2 !
interface Loopback0 ip address 10.1.1.1 255.0.0.0 ipx
network BEEF ! interface Ethernet0 no ip address
shutdown ! ! !--- Virtual-template is a logical
interface that creates virtual access !--- interfaces
dynamically, and applies them to physical serial
interfaces. interface Virtual-Template1 !--- Assumes the
IP & IPX address of Loopback0. ip unnumbered Loopback0
ipx ppp-client Loopback0 ppp multilink !--- Enables
Multilink PPP on the interface. bridge-group 1 !
interface Serial0 no ip address encapsulation ppp no ip
route-cache no ip mroute-cache no fair-queue !---
Enables Multilink PPP on the interface. ppp multilink !
interface Serial1 no ip address encapsulation ppp no ip
route-cache no ip mroute-cache no fair-queue !---
Enables Multilink PPP on the interface. ppp multilink !
interface BRI0 no ip address shutdown ! no ip classless
! bridge 1 protocol ieee ! line con 0 line aux 0 line
vty 0 4 login ! end
```

Goleta

```
Goleta#write terminal Building configuration... Current
configuration : 960 bytes version 12.2 service
timestamps debug uptime service timestamps log uptime no
service password-encryption ! hostname Goleta ! ! ip
subnet-zero no ip domain-lookup ! ! !--- Applies the
virtual interface template to the multilink bundle. !---
Skip this step for ISDN or dialer interfaces. multilink
virtual-template 1 ipx routing 0000.0c47.4e9a ! ! !
interface Loopback0 ip address 192.168.10.2
255.255.255.0 ipx network BEEF ! interface Ethernet0 no
ip address shutdown ! !--- Virtual-template is a logical
interface that Creates virtual access !--- interfaces
dynamically and applies them to physical serial
interfaces. interface Virtual-Template1 !--- Assumes the
IP & IPX address of Loopback0. ip unnumbered Loopback0
ipx ppp-client Loopback0 ! !--- Enables Multilink PPP on
the interface. ppp multilink bridge-group 1 ! interface
Serial0 no ip address encapsulation ppp no fair-queue
clockrate 1000000 ! !--- Enables Multilink PPP on the
interface. ppp multilink ! interface Serial1 no ip
address encapsulation ppp no fair-queue clockrate
1000000 ! !--- Enables Multilink PPP on the interface.
ppp multilink ! interface BRI0 no ip address shutdown !
ip classless ! bridge 1 protocol ieee ! line con 0 line
aux 0 line vty 0 4 ! end
```

Verificación

Use esta sección para confirmar que su configuración funciona correctamente.

[La herramienta Output Interpreter Tool \(clientes registrados solamente\)](#) (OIT) soporta ciertos comandos show. Utilice la OIT para ver un análisis del resultado del comando show.

- **muestre el multilink ppp** — información de las visualizaciones sobre los agrupamientos de links múltiples que son activos. Utilice este comando de verificar la conexión de links múltiples.
- **muestre el acceso virtual de la interfaz** — estatus, los datos del tráfico, y información de la configuración de las visualizaciones sobre una interfaz de acceso virtual específica.
- **muestre el serial de la interfaz** — le permite para resolver problemas cualquier problema con la interfaz serial

Ejemplo de resultado del comando show

hacen los comandos show en el montecito después de la conexión

```
Montecito#show interface virtual-access 1 Virtual-Access1 is up, line protocol is up Hardware is
Virtual Access interface Interface is unnumbered. Using address of Loopback0 (10.1.1.1) MTU 1500
bytes, BW 3088 Kbit, DLY 100000 usec, reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set Keepalive set (10 sec) DTR is pulsed for 5 seconds on reset
LCP Open, multilink Open Open: BRIDGECP, IPCP, IPXCP Last input 00:00:00, output never, output
hang never Last clearing of "show interface" counters 00:02:09 Input queue: 0/75/0/0
(size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue :0/40
(size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0
packets/sec 22 packets input, 743 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 8 packets output, 124
bytes, 0 underruns 0 output errors, 0 collisions, 0 interface resets 0 output buffer failures, 0
output buffers swapped out 0 carrier transitions Montecito#show interface serial 0 Serial0 is
up, line protocol is up Hardware is HD64570 MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255 Encapsulation PPP, loopback not set Keepalive
set (10 sec) LCP Open, multilink Open Last input 00:00:00, output 00:00:06, output hang never
Last clearing of "show interface" counters 02:04:30 Input queue: 0/75/0/0
(size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue :0/40
(size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0
packets/sec 3320 packets input, 107170 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 1483 packets
output, 24622 bytes, 0 underruns 0 output errors, 0 collisions, 6 interface resets 0 output
buffer failures, 0 output buffers swapped out 8 carrier transitions DCD=up DSR=up DTR=up RTS=up
CTS=up Montecito#show interface serial 1 Serial1 is up, line protocol is up Hardware is HD64570
MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec, reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set Keepalive set (10 sec) LCP Open, multilink Open Last input
00:00:00, output 00:00:00, output hang never Last clearing of "show interface" counters 02:04:32
Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo
Output queue :0/40 (size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate
0 bits/sec, 0 packets/sec 3320 packets input, 107161 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 1482
packets output, 24646 bytes, 0 underruns 0 output errors, 0 collisions, 6 interface resets 0
output buffer failures, 0 output buffers swapped out 8 carrier transitions DCD=up DSR=up DTR=up
RTS=up CTS=up Montecito#show ppp multilink Virtual-Access1, bundle name is Goleta Bundle up for
00:01:39 0 lost fragments, 0 reordered, 0 unassigned 0 discarded, 0 lost received, 1/255 load
0x3D received sequence, 0xB sent sequence Member links: 2 (max not set, min not set) Serial1,
since 00:01:40, last rcvd seq 00003C Serial0, since 00:01:39, last rcvd seq 00003B
Montecito#show bridge group Bridge Group 1 is running the IEEE compatible Spanning Tree protocol
Port 10 (Virtual-Access1) of bridge group 1 is forwarding Port 9 (Virtual-Template1) of bridge
```

group 1 is down Montecito#

[hacen los comandos show en el Goleta después de la conexión](#)

```
Goleta#show interface virtual-access 1 Virtual-Access1 is up, line protocol is up Hardware is
Virtual Access interface Interface is unnumbered. Using address of Loopback0 (192.168.10.2) MTU
1500 bytes, BW 3088 Kbit, DLY 100000 usec, reliability 255/255, txload 1/255, rxload 1/255
Encapsulation PPP, loopback not set Keepalive set (10 sec) DTR is pulsed for 5 seconds on reset
LCP Open, multilink Open Open: BRIDGECP, IPCP, IPXCP Last input 00:00:10, output never, output
hang never Last clearing of "show interface" counters 00:02:18 Input queue: 0/75/0/0
(size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue :0/40
(size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0
packets/sec 4 packets input, 52 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 28 packets output, 892
bytes, 0 underruns 0 output errors, 0 collisions, 0 interface resets 0 output buffer failures, 0
output buffers swapped out 0 carrier transitions Goleta#show interface serial 0 Serial0 is up,
line protocol is up Hardware is HD64570 MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec,
reliability 255/255, txload 1/255, rxload 1/255 Encapsulation PPP, loopback not set Keepalive
set (10 sec) LCP Open, multilink Open Last input 01:52:28, output 00:00:00, output hang never
Last clearing of "show interface" counters 02:55:09 Input queue: 0/75/0/0
(size/max/drops/flushes); Total output drops: 0 Queueing strategy: fifo Output queue :0/40
(size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5 minute output rate 0 bits/sec, 0
packets/sec 2364 packets input, 41972 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 4465 packets
output, 134689 bytes, 0 underruns 0 output errors, 0 collisions, 148 interface resets 0 output
buffer failures, 0 output buffers swapped out 294 carrier transitions DCD=up DSR=up DTR=up
RTS=up CTS=up Goleta#show interface serial 1 Serial1 is up, line protocol is up Hardware is
HD64570 MTU 1500 bytes, BW 1544 Kbit, DLY 20000 usec, reliability 255/255, txload 1/255, rxload
1/255 Encapsulation PPP, loopback not set Keepalive set (10 sec) LCP Open, multilink Open Last
input 01:52:38, output 00:00:00, output hang never Last clearing of "show interface" counters
02:55:18 Input queue: 0/75/0/0 (size/max/drops/flushes); Total output drops: 0 Queueing
strategy: fifo Output queue :0/40 (size/max) 5 minute input rate 0 bits/sec, 0 packets/sec 5
minute output rate 0 bits/sec, 0 packets/sec 2366 packets input, 42030 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 4472 packets output, 134930 bytes, 0 underruns 0 output errors, 0 collisions,
147 interface resets 0 output buffer failures, 0 output buffers swapped out 289 carrier
transitions DCD=up DSR=up DTR=up RTS=up CTS=up Goleta#sh ppp multilink Virtual-Access1, bundle
name is Montecito Bundle up for 00:01:35 0 lost fragments, 0 reordered, 0 unassigned 0
discarded, 0 lost received, 1/255 load 0xB received sequence, 0x3B sent sequence Member links: 2
(max not set, min not set) Serial0, since 00:01:36, last rcvd seq 00000A Serial1, since
00:01:35, last rcvd seq 000009 Goleta#show bridge group Bridge Group 1 is running the IEEE
compatible Spanning Tree protocol Port 10 (Virtual-Access1) of bridge group 1 is forwarding Port
9 (Virtual-Templat1) of bridge group 1 is down
```

[Troubleshooting](#)

Use esta sección para resolver problemas de configuración.

[Recursos de resolución de problemas](#)

Utilice a estos recursos de Troubleshooting como sea necesario:

- [Resolución de problemas de línea serial](#)
- [Conexión adosada HDLC](#)
- Resolver problemas las líneas arrendadas

[Comandos para resolución de problemas](#)

[La herramienta Output Interpreter Tool \(clientes registrados solamente\)](#) (OIT) soporta ciertos

comandos show. Utilice la OIT para ver un análisis del resultado del comando show.

Nota: Consulte [Información Importante sobre Comandos de Debug](#) antes de usar un comando debug.

- **haga el debug de la negociación ppp** — indica si un cliente pasa la negociación PPP. También comprobaciones para la negociación de dirección.
- **autenticación PPP del debug** — indica si un cliente pasa la autenticación. Utilice este comando si usted utiliza las versiones de Cisco IOS Software Release 11.2 o Posterior.
- **PPP chap del debug** — indica si un cliente pasa la autenticación. Utilice este comando si usted utiliza una versión de Cisco IOS Software anterior que la versión 11.2.
- **debug ppp error** — errores del protocolo y estadística de errores de las visualizaciones asociados a la negociación y a la operación de la conexión PPP.
- **debug vtemplate** — le permite para ver se utilizan qué configuraciones de plantilla virtual.
- **debug vprofile** — le permite para ver qué opciones de configuración se aplican a la interfaz de acceso virtual.

[Ejemplo de resultado del comando debug](#)

Aquí están algunas salidas de los debugs para las llamadas satisfactorias. Atención de la paga a las secciones en la **fuentes en negrita**. Compare la salida que usted obtiene con el resultado mostrado aquí:

[Depuraciones de PPP en Montecito](#)

```
Montecito#debug ppp negotiation PPP protocol negotiation debugging is on Montecito# 00:07:30:
%LINK-3-UPDOWN: Interface Serial1, changed state to up 00:07:30: Se1 PPP: Treating connection as
a dedicated line 00:07:30: Se1 PPP: Phase is ESTABLISHING, Active Open [0 sess, 2 load]
00:07:30: Se1 LCP: O CONFREQ [Closed] id 4 len 26 00:07:30: Se1 LCP: MagicNumber 0x6063D57E
(0x05066063D57E) 00:07:30: Se1 LCP: MRRU 1524 (0x110405F4) 00:07:30: Se1 LCP: EndpointDisc 1
Montecito (0x130C014D6F6E74656369746F) 00:07:30: Se1 LCP: I CONFREQ [REQsent] id 101 len 23
00:07:30: Se1 LCP: MagicNumber 0x60944B81 (0x050660944B81) 00:07:30: Se1 LCP: MRRU 1524
(0x110405F4) 00:07:30: Se1 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 00:07:30: Se1 LCP:
O CONFACK [REQsent] id 101 len 23 00:07:30: Se1 LCP: MagicNumber 0x60944B81 (0x050660944B81)
00:07:30: Se1 LCP: MRRU 1524 (0x110405F4) 00:07:30: Se1 LCP: EndpointDisc 1 Goleta
(0x130901476F6C657461) 00:07:30: Se1 LCP: I CONFACK [ACKsent] id 4 len 26 00:07:30: Se1 LCP:
MagicNumber 0x6063D57E (0x05066063D57E) 00:07:30: Se1 LCP: MRRU 1524 (0x110405F4) 00:07:30: Se1
LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 00:07:30: Se1 LCP: State is Open
00:07:30: Se1 PPP: Phase is VIRTUALIZED [0 sess, 1 load] 00:07:31: Vi1 PPP: Phase is DOWN, Setup
[0 sess, 0 load] 00:07:31: Vi1 PPP: Phase is ESTABLISHING [0 sess, 0 load] 00:07:31: %LINK-3-
UPDOWN: Interface Serial0, changed state to up 00:07:31: Se0 PPP: Treating connection as a
dedicated line 00:07:31: Se0 PPP: Phase is ESTABLISHING, Active Open [0 sess, 0 load] 00:07:31:
Se0 LCP: O CONFREQ [Closed] id 4 len 26 00:07:31: Se0 LCP: MagicNumber 0x6063D8DC
(0x05066063D8DC) 00:07:31: Se0 LCP: MRRU 1524 (0x110405F4) 00:07:31: Se0 LCP: EndpointDisc 1
Montecito (0x130C014D6F6E74656369746F) 00:07:31: %LINK-3-UPDOWN: Interface Virtual-Access1,
changed state to up 00:07:31: Vi1 PPP: Treating connection as a dedicated line 00:07:31: Vi1
LCP: O CONFREQ [Closed] id 1 len 26 00:07:31: Vi1 LCP: MagicNumber 0x6063D8F9 (0x05066063D8F9)
00:07:31: Vi1 LCP: MRRU 1524 (0x110405F4) 00:07:31: Vi1 LCP: EndpointDisc 1 Montecito
(0x130C014D6F6E74656369746F) 00:07:31: Vi1 PPP: Phase is UP [0 sess, 0 load] 00:07:31: Vi1 BNCP:
O CONFREQ [Closed] id 1 len 4 00:07:31: Vi1 IPCP: O CONFREQ [Closed] id 1 len 10 00:07:31: Vi1
IPCP: Address 10.1.1.1 (0x03060A010101) 00:07:31: Vi1 IPXCP: O CONFREQ [Closed] id 1 len 18
00:07:31: Vi1 IPXCP: Network 0x0000BEEF (0x01060000BEEF) 00:07:31: Vi1 IPXCP: Node
0000.0c31.aac2 (0x020800000C31AAC2) 00:07:31: Vi1 MLP: Added first link Se1 to bundle Goleta
00:07:31: Se0 LCP: I CONFREQ [REQsent] id 101 len 23 00:07:31: Se0 LCP: MagicNumber 0x60944EF7
(0x050660944EF7) 00:07:31: Se0 LCP: MRRU 1524 (0x110405F4) 00:07:31: Se0 LCP: EndpointDisc 1
Goleta (0x130901476F6C657461) 00:07:31: Se0 LCP: O CONFACK [REQsent] id 101 len 23 00:07:31: Se0
```

LCP: MagicNumber 0x60944EF7 (0x050660944EF7) 00:07:31: Se0 LCP: MRRU 1524 (0x110405F4) 00:07:31: Se0 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 00:07:31: Se1 BNCPC: MLP bundle interface is built, process packets now 00:07:31: Se1 BNCPC: Redirect packet to Vi1 00:07:31: Vi1 BNCPC: I CONFREQ [REQsent] id 1 len 4 00:07:31: Vi1 BNCPC: O CONFACK [REQsent] id 1 len 4 00:07:31: Vi1 IPCPC: I CONFREQ [REQsent] id 1 len 10 00:07:31: Vi1 IPCPC: Address 192.168.10.2 (0x0306C0A80A02) 00:07:31: Vi1 IPCPC: O CONFACK [REQsent] id 1 len 10 00:07:31: Vi1 IPCPC: Address 192.168.10.2 (0x0306C0A80A02) 00:07:31: Vi1 IPXPC: I CONFREQ [REQsent] id 1 len 18 00:07:31: Vi1 IPXPC: Network 0x0000BEEF (0x01060000BEEF) 00:07:31: Vi1 IPXPC: Node 0000.0c47.4e9a (0x020800000C474E9A) 00:07:31: Vi1 IPXPC: O CONFACK [REQsent] id 1 len 18 00:07:31: Vi1 IPXPC: Network 0x0000BEEF (0x01060000BEEF) 00:07:31: Vi1 IPXPC: Node 0000.0c47.4e9a (0x020800000C474E9A) 00:07:31: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial1, changed state to up 00:07:31: Se0 LCP: I CONFACK [ACKsent] id 4 len 26 00:07:31: Se0 LCP: MagicNumber 0x6063D8DC (0x05066063D8DC) 00:07:31: Se0 LCP: MRRU 1524 (0x110405F4) 00:07:31: Se0 LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 00:07:31: Se0 LCP: State is Open 00:07:31: Se0 PPP: Phase is VIRTUALIZED [0 sess, 2 load] 00:07:31: Vi1 MLP: Added link Se0 to bundle Goleta 00:07:31: Vi1 BNCPC: I CONFACK [ACKsent] id 1 len 4 00:07:31: Vi1 BNCPC: State is Open 00:07:31: Vi1 IPCPC: I CONFACK [ACKsent] id 1 len 10 00:07:31: Vi1 IPCPC: Address 10.1.1.1 (0x03060A010101) 00:07:31: Vi1 IPCPC: State is Open 00:07:31: Vi1 IPXPC: I CONFACK [ACKsent] id 1 len 18 00:07:31: Vi1 IPXPC: Network 0x0000BEEF (0x01060000BEEF) 00:07:31: Vi1 IPXPC: Node 0000.0c31.aac2 (0x020800000C31AAC2) 00:07:31: Vi1 IPXPC: State is Open 00:07:31: Vi1 IPCPC: Install route to 192.168.10.2 00:07:32: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1, changed state to up 00:07:32: %LINEPROTO-5-UPDOWN: Line protocol on Interface Serial0, changed state to up Montecito# Montecito#ping 192.168.10.2 Type escape sequence to abort. Sending 5, 100-byte ICMP Echos to 192.168.10.2, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 8/9/12 ms Montecito#ping ipx Target IPX address: BEEF.0000.0c47.4e9a Repeat count [5]: Datagram size [100]: Timeout in seconds [2]: Verbose [n]: Type escape sequence to abort. Sending 5, 100-byte IPX Novell Echoes to BEEF.0000.0c47.4e9a, timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 8/10/12 ms Montecito#

Debugs PPP en el Goleta

Goleta#debug ppp negotiation PPP protocol negotiation debugging is on Goleta# 01:00:26: Se0 PPP: Treating connection as a dedicated line 01:00:26: Se0 PPP: Phase is ESTABLISHING, Active Open [0 sess, 0 load] 01:00:26: Se0 LCP: O CONFREQ [Closed] id 101 len 23 01:00:26: Se0 LCP: MagicNumber 0x60944B81 (0x050660944B81) 01:00:26: Se0 LCP: MRRU 1524 (0x110405F4) 01:00:26: Se0 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 01:00:26: Se0 LCP: I CONFREQ [REQsent] id 4 len 26 01:00:26: Se0 LCP: MagicNumber 0x6063D57E (0x05066063D57E) 01:00:26: Se0 LCP: MRRU 1524 (0x110405F4) 01:00:26: Se0 LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 01:00:26: Se0 LCP: O CONFACK [REQsent] id 4 len 26 01:00:26: Se0 LCP: MagicNumber 0x6063D57E (0x05066063D57E) 01:00:26: Se0 LCP: MRRU 1524 (0x110405F4) 01:00:26: Se0 LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 01:00:26: Se0 LCP: I CONFACK [ACKsent] id 101 len 23 01:00:26: Se0 LCP: MagicNumber 0x60944B81 (0x050660944B81) 01:00:26: Se0 LCP: MRRU 1524 (0x110405F4) 01:00:26: Se0 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 01:00:26: Se0 LCP: State is Open 01:00:26: Se0 PPP: Phase is VIRTUALIZED [0 sess, 0 load] 01:00:26: Vi1 PPP: Phase is DOWN, Setup [0 sess, 0 load] 01:00:26: Vi1 PPP: Phase is ESTABLISHING [0 sess, 0 load] 01:00:27: %LINK-3-UPDOWN: Interface Serial1, changed state to up 01:00:27: Se1 PPP: Treating connection as a dedicated line 01:00:27: Se1 PPP: Phase is ESTABLISHING, Active Open [0 sess, 0 load] 01:00:27: Se1 LCP: O CONFREQ [Closed] id 101 len 23 01:00:27: Se1 LCP: MagicNumber 0x60944EF7 (0x050660944EF7) 01:00:27: Se1 LCP: MRRU 1524 (0x110405F4) 01:00:27: Se1 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 01:00:27: %LINK-3-UPDOWN: Interface Virtual-Access1, changed state to up 01:00:27: Vi1 PPP: Treating connection as a dedicated line 01:00:27: Vi1 LCP: O CONFREQ [Closed] id 1 len 23 01:00:27: Vi1 LCP: MagicNumber 0x60944F10 (0x050660944F10) 01:00:27: Vi1 LCP: MRRU 1524 (0x110405F4) 01:00:27: Vi1 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 01:00:27: Vi1 PPP: Phase is UP [0 sess, 0 load] 01:00:27: Vi1 BNCPC: O CONFREQ [Closed] id 1 len 4 01:00:27: Vi1 IPCPC: O CONFREQ [Closed] id 1 len 10 01:00:27: Vi1 IPCPC: Address 192.168.10.2 (0x0306C0A80A02) 01:00:27: Vi1 IPXPC: O CONFREQ [Closed] id 1 len 18 01:00:27: Vi1 IPXPC: Network 0x0000BEEF (0x01060000BEEF) 01:00:27: Vi1 IPXPC: Node 0000.0c47.4e9a (0x020800000C474E9A) 01:00:27: Vi1 MLP: Added first link Se0 to bundle Montecito 01:00:27: Se1 LCP: I CONFREQ [REQsent] id 4 len 26 01:00:27: Se1 LCP: MagicNumber 0x6063D8DC (0x05066063D8DC) 01:00:27: Se1 LCP: MRRU 1524 (0x110405F4) 01:00:27: Se1 LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 01:00:27: Se1 LCP: O CONFACK [REQsent] id 4 len 26 01:00:27: Se1 LCP: MagicNumber 0x6063D8DC (0x05066063D8DC) 01:00:27: Se1 LCP: MRRU 1524

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(0x110405F4) 01:00:27: Se1 LCP: EndpointDisc 1 Montecito (0x130C014D6F6E74656369746F) 01:00:27:
Se0 BNCP: MLP bundle interface is built, process packets now 01:00:27: Se0 BNCP: Redirect packet
to Vi1 01:00:27: Vi1 BNCP: I CONFREQ [REQsent] id 1 len 4 01:00:27: Vi1 BNCP: O CONFACK
[REQsent] id 1 len 4 01:00:27: Se0 IPCP: MLP bundle interface is built, process packets now
01:00:27: Se0 IPCP: Redirect packet to Vi1 01:00:27: Vi1 IPCP: I CONFREQ [REQsent] id 1 len 10
01:00:27: Vi1 IPCP: Address 10.1.1.1 (0x03060A010101) 01:00:27: Vi1 IPCP: O CONFACK [REQsent] id
1 len 10 01:00:27: Vi1 IPCP: Address 10.1.1.1 (0x03060A010101) 01:00:27: Se0 IPXCP: MLP bundle
interface is built, process packets now 01:00:27: Se0 IPXCP: Redirect packet to Vi1 01:00:27:
Vi1 IPXCP: I CONFREQ [REQsent] id 1 len 18 01:00:27: Vi1 IPXCP: Network 0x0000BEEF
(0x01060000BEEF) 01:00:27: Vi1 IPXCP: Node 0000.0c31.aac2 (0x020800000C31AAC2) 01:00:27: Vi1
IPXCP: O CONFACK [REQsent] id 1 len 18 01:00:27: Vi1 IPXCP: Network 0x0000BEEF (0x01060000BEEF)
01:00:27: Vi1 IPXCP: Node 0000.0c31.aac2 (0x020800000C31AAC2) 01:00:27: %LINEPROTO-5-UPDOWN:
Line protocol on Interface Serial0, changed state to up 01:00:27: Se1 LCP: I CONFACK [ACKsent]
id 101 len 23 01:00:27: Se1 LCP: MagicNumber 0x60944EF7 (0x050660944EF7) 01:00:27: Se1 LCP: MRRU
1524 (0x110405F4) 01:00:27: Se1 LCP: EndpointDisc 1 Goleta (0x130901476F6C657461) 01:00:27: Se1
LCP: State is Open 01:00:27: Se1 PPP: Phase is VIRTUALIZED [0 sess, 4 load] 01:00:27: Vi1 BNCP:
I CONFACK [ACKsent] id 1 len 4 01:00:27: Vi1 BNCP: State is Open 01:00:27: Vi1 MLP: Added link
Se1 to bundle Montecito 01:00:27: Vi1 IPCP: I CONFACK [ACKsent] id 1 len 10 01:00:27: Vi1 IPCP:
Address 192.168.10.2 (0x0306C0A80A02) 01:00:27: Vi1 IPCP: State is Open 01:00:27: Vi1 IPXCP: I
CONFACK [ACKsent] id 1 len 18 01:00:27: Vi1 IPXCP: Network 0x0000BEEF (0x01060000BEEF) 01:00:27:
Vi1 IPXCP: Node 0000.0c47.4e9a (0x020800000C474E9A) 01:00:27: Vi1 IPXCP: State is Open 01:00:27:
Vi1 IPCP: Install route to 10.1.1.1 01:00:28: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Virtual-Access1, changed state to up 01:00:28: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Serial1, changed state to up Goleta# Goleta#ping 10.1.1.1 Type escape sequence to abort. Sending
5, 100-byte ICMP Echos to 10.1.1.1, timeout is 2 seconds: !!!!! Success rate is 100 percent
(5/5), round-trip min/avg/max = 8/10/12 ms Goleta#ping ipx Target IPX address:
BEEF.0000.0c31.aac2 Repeat count [5]: Datagram size [100]: Timeout in seconds [2]: Verbose [n]:
Type escape sequence to abort. Sending 5, 100-byte IPX Novell Echoes to BEEF.0000.0c31.aac2,
timeout is 2 seconds: !!!!! Success rate is 100 percent (5/5), round-trip min/avg/max = 8/10/12
ms
```

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