

# 在VPDN配置示例的MLPPP

## 目录

[简介](#)

[先决条件](#)

[要求](#)

[使用的组件](#)

[配置](#)

[网络图](#)

[配置](#)

[验证](#)

[相关信息](#)

[相关的思科支持社区讨论](#)

## 简介

此条款描述客户端、Layer2隧道协议接入集中器(LAC)和Layer2该隧道协议的网络服务器(LNS)的配置帮助启动在虚拟专用拨号网络(VPDN)通道在客户端和LNS之间被建立的多链路点对点协议(MLPPP)会话。

## 先决条件

### 要求

思科建议您符合这些要求，在您尝试此配置前：

- 端到端第1层连接是UP

### 使用的组件

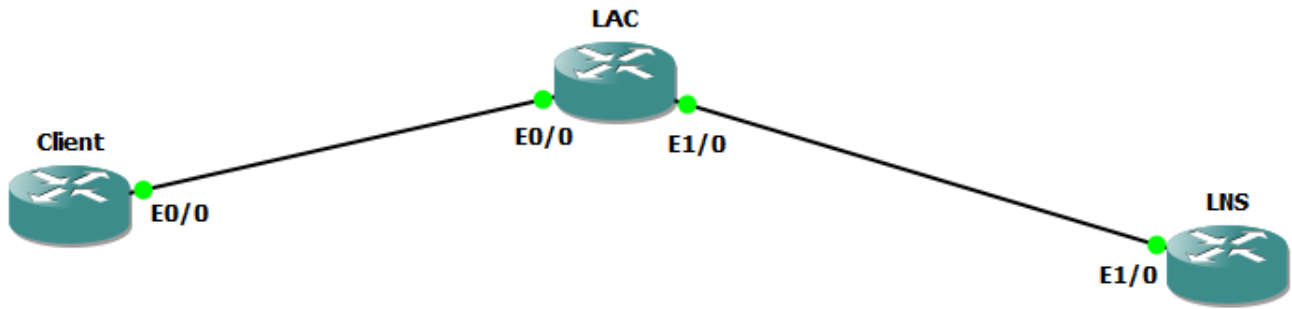
本文档不限于特定的软件和硬件版本。

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

## 配置

Note:使用[命令查找工具](#) ([仅限注册用户](#)) 可获取有关本部分所使用命令的详细信息。

### 网络图



## 配置

**注意：**在PPP或多链路PPP会话开始时间，一旦PPP控制数据包交换，多链路PPP会话协商在CPE和LNS之间，不与LAC。LAC没有关于多链路PPP会话的知识。结果，当CPE启动PPP-LCP会话时，多链路(最大接收重建单元[MRRU])协商包括作为LCP协商一部分可能发生故障，如果LAC未建立与(的连接典型地是实际情形)的LNS。当在LAC和LNS之间的IP可达性设立时，LNS能重新协商多链路(MRRU)与CPE的LCP选项，并且两对等设备能然后建立一个端到端多链路PPP会话。

### 客户端配置：

配置的示例在客户端路由器的显示此处：

```

Ethernet0/0

IP

pppoe enable

pppoe-client dial-pool-number 1

1

bandwidth 64

IP

encapsulation ppp

1

dialer idle-timeout 0

Keepalive 30

ppp30

ppp chap hostname user@cisco.com

ppp chap password cisco

PPP
  
```

```
no cdp enable
```

## **LAC配置：**

配置的示例在LAC路由器的显示此处：

```
LAC
```

```
!
```

```
vpdn enable
```

```
!
```

```
vpdn-group 1
```

```
L2TP
```

```
cisco.com
```

```
initiate-to ip 192.168.1.2
```

```
L2TP
```

```
!
```

```
BBApmpoe
```

```
virtual-template 1
```

```
!
```

```
Ethernet0/0
```

```
IP
```

```
pppoe enable
```

```
Ethernet1/0
```

```
ip address 192.168.1.1 255.255.255.0
```

```
Virtual-Template1
```

```
IP
```

```
ppp authentication chap
```

```
PPP
```

## **LNS配置：**

配置的示例在LNS路由器的显示此处：

```
vpdn enable
!
vpdn-group 1

L2TP
virtual-template 1

LAC

lcp renegotiation

L2TP
!
user@cisco.comcisco

int loopback0
IP10.10.10.10 255.255.255.0

Ethernet1/0

ip address 192.168.1.2 255.255.255.0

Virtual-Template1

mtu 1492

ip unnumbered Loopback0

IPcisco

ppp authentication chap

PPP
!

ip local pool cisco 10.10.10.11 10.10.10.24
```

## 验证

跟随的调试在客户端、LAC和LNS启用：

- Debug ppp negotiation
- Debug PPPoE event
- Debug ppp多链路事件
- Debug vpdn event
- Debug vpdn呼叫事件

#### 客户端日志：

```

*Jan 14 11:01:12.744 PADI = Ethernet0/0
*Jan 14 11:01:12.744 PPPoE 0 PADO R:aabb.cc02.bd00 L:aabb.cc02.bc00
Et0/0
*Jan 14 11:01:14.824 PPPOE padopado
*Jan 14 11:01:14.824 PPPoEOUT PADR
*Jan 14 11:01:14.825 PPPoE 9 PAD R:aabb.cc02.bd00 L:aabb.cc02.bc00 Et0/0
*Jan 14 11:01:14.825 PPPoEIN PAD
*Jan 14 11:01:14.825 %DIALER-6-BIND Di1Vi3
*Jan 14 11:01:14.825 PPPoE
*Jan 14 11:01:14.825 PPPoE encap
*Jan 14 11:01:14.825 [0]PPPoE 9 PPPoE
*Jan 14 11:01:14.834 %LINK-3-UPDOWN Virtual-Access3
*Jan 14 11:01:14.834 Vi3 PPP cstate
*Jan 14 11:01:14.834 Vi3 PPP CstateUp
*Jan 14 11:01:14.834 PPP [2A970D92E8]
*Jan 14 11:01:14.834 ppp14 PPP
*Jan 14 11:01:14.834 Vi3 PPP
*Jan 14 11:01:14.834 Vi3 PPP Treating connection as a callout
*Jan 14 11:01:14.834 Vi3 PPP handle[C2000013]id[14]
*Jan 14 11:01:14.834 Vi3 LCP [OPEN][Initial to Starting]
*Jan 14 11:01:14.834 Vi3 PPP
*Jan 14 11:01:14.834 Vi3 LCP O CONFREQ [Starting] id 1 LEN 30
*Jan 14 11:01:14.834 Vi3 LCP MagicNumber 0xBC220EF6 (0x0506BC220EF6)
*Jan 14 11:01:14.835 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.835 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.835 Vi3 LCP [UP][Starting to REQsent]
*Jan 14 11:01:14.835 Vi3 LCP CONFREQ [REQsent] id 1 LEN 29
*Jan 14 11:01:14.835 Vi3 LCP MRU 1492 (0x010405D4)
*Jan 14 11:01:14.835 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.835 Vi3 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)
*Jan 14 11:01:14.835 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.835 Vi3 LCP EndpointDisc 1 LAC (0x1306014C4143)
*Jan 14 11:01:14.835 Vi3 LCP O CONFNAK [REQsent] id 1 LEN 8
*Jan 14 11:01:14.835 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.835 Vi3 LCP [Receive ConfReq-][REQsent to REQsent]
*Jan 14 11:01:14.835 Vi3 LCP CONFACK [REQsent] id 1 LEN 30
*Jan 14 11:01:14.835 Vi3 LCP MagicNumber 0xBC220EF6 (0x0506BC220EF6)
*Jan 14 11:01:14.835 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.835 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.835 Vi3 LCP [Receive ConfAck][REQsent to ACKrcvd]
*Jan 14 11:01:14.836 Vi3 LCP CONFREQ [ACKrcvd] id 2 LEN 29
*Jan 14 11:01:14.836 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.836 Vi3 LCP AuthProto CHAP (0x0305C22305)

```

```
*Jan 14 11:01:14.836 Vi3 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)
*Jan 14 11:01:14.836 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.836 Vi3 LCP EndpointDisc 1 LAC (0x1306014C4143)
*Jan 14 11:01:14.836 Vi3 LCP O CONFACK [ACKrcvd] id 2 LEN 29
*Jan 14 11:01:14.836 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.836 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.836 Vi3 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)
*Jan 14 11:01:14.836 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.836 Vi3 LCP EndpointDisc 1 LAC (0x1306014C4143)
*Jan 14 11:01:14.836 Vi3 LCP [Receive ConfReq+][ACKrcvd to Open]
*Jan 14 11:01:14.854 Vi3 PPP Phase is AUTHENTICATING, by the peer
*Jan 14 11:01:14.854 Vi3 LCP State is Open
*Jan 14 11:01:14.856 Vi3 CHAP "LAC" id 1 LEN 24
*Jan 14 11:01:14.856 Vi3 CHAP CHAP
*Jan 14 11:01:14.856 Vi3 CHAP CHAP
*Jan 14 11:01:14.856 Vi3 CHAP O"user@cisco.com" id 1 LEN 34
*Jan 14 11:01:14.861 Vi3 LCP CONFREQ [Open] id 1 LEN 39
*Jan 14 11:01:14.861 Vi3 LCP MRU 1492 (0x010405D4)
*Jan 14 11:01:14.861 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.861 Vi3 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)
*Jan 14 11:01:14.861 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.861 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.861 Vi3 PPP DISC PPP
*Jan 14 11:01:14.861 PPP AAANET STOP
*Jan 14 11:01:14.861 Vi3 LCP [LCP Reneg][Open to Open]
*Jan 14 11:01:14.861 Vi3 LCP [DOWN][Open to Starting]
*Jan 14 11:01:14.861 Vi3 PPP
*Jan 14 11:01:14.861 PPP [2A970D9898]
*Jan 14 11:01:14.861 ppp14 PPP
*Jan 14 11:01:14.861 Vi3 PPP
*Jan 14 11:01:14.861 Vi3 PPP Treating connection as a callout
*Jan 14 11:01:14.861 Vi3 PPP handle[2B000014]id[14]
*Jan 14 11:01:14.861 Vi3 LCP [OPEN][Initial to Starting]
*Jan 14 11:01:14.861 Vi3 PPP
*Jan 14 11:01:14.861 Vi3 LCP O CONFREQ [Starting] id 1 LEN 30
*Jan 14 11:01:14.861 Vi3 LCP MagicNumber 0xBC220F12 (0x0506BC220F12)
*Jan 14 11:01:14.861 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.861 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.862 Vi3 LCP [UP][Starting to REQsent]
*Jan 14 11:01:14.862 Vi3 LCP CONFREQ [REQsent] id 1 LEN 39
*Jan 14 11:01:14.862 Vi3 LCP MRU 1492 (0x010405D4)
*Jan 14 11:01:14.862 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.862 Vi3 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)
*Jan 14 11:01:14.862 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.862 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.862 Vi3 PPP user@cisco.com
*Jan 14 11:01:14.862 Vi3 LCP O CONFNAK [REQsent] id 1 LEN 8
*Jan 14 11:01:14.862 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.862 Vi3 LCP [Receive ConfReq-][REQsent to REQsent]
*Jan 14 11:01:14.862 Vi3 LCP CONFACK [REQsent] id 1 LEN 30
```

```
*Jan 14 11:01:14.862 Vi3 LCP MagicNumber 0xBC220F12 (0x0506BC220F12)
*Jan 14 11:01:14.862 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.862 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.862 Vi3 LCP [Receive ConfAck][REQsent to ACKrcvd]
*Jan 14 11:01:14.862 Vi3 LCP CONFREQ [ACKrcvd] id 2 LEN 39
*Jan 14 11:01:14.862 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.862 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.862 Vi3 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)
*Jan 14 11:01:14.862 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.862 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.862 Vi3 PPP user@cisco.com
*Jan 14 11:01:14.862 Vi3 LCP O CONFACK [ACKrcvd] id 2 LEN 39
*Jan 14 11:01:14.862 Vi3 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.862 Vi3 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.862 Vi3 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)
*Jan 14 11:01:14.862 Vi3 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.862 Vi3 LCP EndpointDisc 1 user@cisco.com
(0x1310017573657240737572662E6F7267)
*Jan 14 11:01:14.862 Vi3 LCP [Receive ConfReq+][ACKrcvd to Open]
*Jan 14 11:01:14.884 Vi3 PPP Phase is AUTHENTICATING, by the peer
*Jan 14 11:01:14.884 Vi3 LCP State is Open
*Jan 14 11:01:14.895 Vi3 CHAP "LNS" id 2 LEN 27
*Jan 14 11:01:14.895 Vi3 CHAP CHAP
*Jan 14 11:01:14.895 Vi3 CHAP CHAP
*Jan 14 11:01:14.895 Vi3 CHAP O"user@cisco.com" id 2 LEN 34
*Jan 14 11:01:14.896 Vi3 CHAP I SUCCESS id 2 len 4
*Jan 14 11:01:14.896 Vi3 PPP Phase is FORWARDING, Attempting Forward
*Jan 14 11:01:14.897 Vi3 PPP Phase is ESTABLISHING, Finish LCP
*Jan 14 11:01:14.897 Vi3 MLP
*Jan 14 11:01:14.897 Vi3 PPP
*Jan 14 11:01:14.897 Vi3 MLP
*Jan 14 11:01:14.897 Vi3 MLP vaccess
*Jan 14 11:01:14.897 Vi3 MLP SSS
*Jan 14 11:01:14.897 Vi3 MLP Di1
*Jan 14 11:01:14.897 Vi3 MLP SSS
*Jan 14 11:01:14.897 Vi3 MLP Di1
*Jan 14 11:01:14.897 Vi3 MLP SSSVi4
*Jan 14 11:01:14.897 PPP [2A970D95C0]
*Jan 14 11:01:14.897 ppp15 PPP
*Jan 14 11:01:14.897 Vi4 MLP 10000064
*Jan 14 11:01:14.897 Vi4 MLP frag
*Jan 14 11:01:14.897 Vi4 MLP 100frag1524
*Jan 14 11:01:14.897 Vi4 MLP 100frag1524
*Jan 14 11:01:14.897 %DIALER-6-BIND Di1Vi4
*Jan 14 11:01:14.897 Vi4 MLP Di1
*Jan 14 11:01:14.897 Vi4 MLP Vi3
*Jan 14 11:01:14.897 Vi4 MLP 6464
*Jan 14 11:01:14.897 Vi3 MLP Init1
*Jan 14 11:01:14.897 Vi4 MLP
*Jan 14 11:01:14.897 Vi4 MLP LNSVi3
*Jan 14 11:01:14.897 Vi4 MLP 100frag1524
```

```
*Jan 14 11:01:14.898 Vi3 MLP PPP handle[0x6F000015]SSS
*Jan 14 11:01:14.898 %LINEPROTO-5-UPDOWN Virtual-Access3
*Jan 14 11:01:14.898 Vi4 MLP
*Jan 14 11:01:14.914 %LINK-3-UPDOWN 4
*Jan 14 11:01:14.914 Vi4 PPP LCPMLP
*Jan 14 11:01:14.914 Vi4 PPP Phase is UP
*Jan 14 11:01:14.914 Vi4 IPCP CP[Initial]
*Jan 14 11:01:14.914 Vi4 IPCP [OPEN][Initial to Starting]
*Jan 14 11:01:14.914 Vi4 IPCP O CONFREQ [Starting] id 1 LEN 10
*Jan 14 11:01:14.914 Vi4 IPCP 0.0.0.0 (0x030600000000)
*Jan 14 11:01:14.914 Vi4 IPCP [UP][Starting to REQsent]
*Jan 14 11:01:14.915 Vi4 IPCP I CONFREQ [REQsent] id 1 len 10
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.10 (0x03060A0A0A0A)
*Jan 14 11:01:14.915 Vi4 IPCP O CONFACK [REQsent] id 1 len 10
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.10 (0x03060A0A0A0A)
*Jan 14 11:01:14.915 Vi4 IPCP [Receive ConfReq+][REQsent to ACKsent]
*Jan 14 11:01:14.915 %LINEPROTO-5-UPDOWN 4
*Jan 14 11:01:14.915 Vi4 IPCP CONFNAK [ACKsent] id 1 LEN 10
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.915 Vi4 IPCP O CONFREQ [ACKsent] id 2 LEN 10
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.915 Vi4 IPCP [Receive ConfNak/Rej][ACKsent to ACKsent]
*Jan 14 11:01:14.936 Vi4 IPCP I CONFACK [ACKsent] id 2 len 10
*Jan 14 11:01:14.936 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.936 Vi4 IPCP [Receive ConfAck][ACKsent to Open]
*Jan 14 11:01:14.954 Vi4 IPCP State is Open
*Jan 14 11:01:14.954 Di1 IPCP IP10.10.10.18
*Jan 14 11:01:14.954 Di1AVLtopoid 010.10.10.10
*Jan 14 11:01:14.954 Di1 IPCP 10.10.10.10
```

**Client#show ppp**

Interface/ID OPEN+ Nego\*

-----  
----

Vi4 IPCP+ LocalT 10.10.10.10 LNS

Vi3 LCP+ LocalT 10.10.10.10 LNS

**Client#show PPP**

4

LNS

LNS

[1] user@cisco.com

user@cisco.com



[1] user@cisco.com

00:00:1764 load 1/255

12192 frag1524

1

0/0/

00

0/0/ 0

0x3 0x0

1 (255)

Vi300:00:17

## LAC

\*Jan 14 11:01:12.744 PPPoE 0 PADI R:aabb.cc02.bc00 L ffff.ffff.ffff Et0/0

\*Jan 14 11:01:12.744 NULL

\*Jan 14 11:01:12.744 PPPoE 0 O PADO R:aabb.cc02.bd00 L:aabb.cc02.bc00 Et0/0

\*Jan 14 11:01:12.744 NULL

\*Jan 14 11:01:14.824 PPPoE 0 PADR R:aabb.cc02.bc00 L:aabb.cc02.bd00 Et0/0

\*Jan 14 11:01:14.824 NULL

\*Jan 14 11:01:14.824 PPPoE encaps

\*Jan 14 11:01:14.824 [9]PPPoE 9 IE

\*Jan 14 11:01:14.824 [9]PPPoE 9 17AAAID

\*Jan 14 11:01:14.824 [9]PPPoE 9 Aaa accounting

\*Jan 14 11:01:14.824 [9]PPPoE 9 SSS

\*Jan 14 11:01:14.824 [9]PPPoE 9 R:aabb.cc02.bd00 L:aabb.cc02.bc00 Et0/0

\*Jan 14 11:01:14.825 [9]PPPoE 9 NAS\_PORT\_POLICY\_INQUIRYSSSKEY

\*Jan 14 11:01:14.825 PPP [2A970D9898]  
\*Jan 14 11:01:14.825 ppp9 PPP  
\*Jan 14 11:01:14.825 [9]PPPoE 9 PPP  
\*Jan 14 11:01:14.825 [9]PPPoE 9 (SSS)  
\*Jan 14 11:01:14.825 [9]PPPoE 9 PROVISION\_PPPSSM  
\*Jan 14 11:01:14.825 [9]PPPoE 9 O PAD R:aabb.cc02.bc00 L:aabb.cc02.bd00  
Et0/0  
\*Jan 14 11:01:14.825 ppp9 PPP VPN  
\*Jan 14 11:01:14.825 ppp9 PPP  
\*Jan 14 11:01:14.825 ppp9 PPP handle[B4000009]id[9]  
\*Jan 14 11:01:14.825 ppp9 LCP [OPEN][Initial to Starting]  
\*Jan 14 11:01:14.825 ppp9 PPP LCP [Stopped]  
\*Jan 14 11:01:14.835 ppp9 LCP CONFREQ [Stopped] id 1 LEN 30  
\*Jan 14 11:01:14.835 ppp9 LCP MagicNumber 0xBC220EF6 (0x0506BC220EF6)  
\*Jan 14 11:01:14.835 ppp9 LCP MRRU 1524 (0x110405F4)  
\*Jan 14 11:01:14.835 ppp9 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)  
\*Jan 14 11:01:14.835 ppp9 LCP O CONFREQ [Stopped] id 1 LEN 29  
\*Jan 14 11:01:14.835 ppp9 LCP MRU 1492 (0x010405D4)  
\*Jan 14 11:01:14.835 ppp9 LCP AuthProto CHAP (0x0305C22305)  
\*Jan 14 11:01:14.835 ppp9 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)  
\*Jan 14 11:01:14.835 ppp9 LCP MRRU 1524 (0x110405F4)  
\*Jan 14 11:01:14.835 ppp9 LCP EndpointDisc 1 LAC (0x1306014C4143)  
\*Jan 14 11:01:14.835 ppp9 LCP O CONFACK [Stopped] id 1 LEN 30  
\*Jan 14 11:01:14.835 ppp9 LCP MagicNumber 0xBC220EF6 (0x0506BC220EF6)  
\*Jan 14 11:01:14.835 ppp9 LCP MRRU 1524 (0x110405F4)  
\*Jan 14 11:01:14.835 ppp9 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

```
*Jan 14 11:01:14.835 ppp9 LCP [Receive ConfReq+][Stopped to ACKsent]
*Jan 14 11:01:14.836 ppp9 LCP CONFNAK [ACKsent] id 1 LEN 8
*Jan 14 11:01:14.836 ppp9 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.836 ppp9 LCP O CONFREQ [ACKsent] id 2 LEN 29
*Jan 14 11:01:14.836 ppp9 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.836 ppp9 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.836 ppp9 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)
*Jan 14 11:01:14.836 ppp9 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.836 ppp9 LCP EndpointDisc 1 LAC (0x1306014C4143)
*Jan 14 11:01:14.836 ppp9 LCP [Receive ConfNak/Rej][ACKsent to ACKsent]
*Jan 14 11:01:14.836 ppp9 LCP CONFACK [ACKsent] id 2 LEN 29
*Jan 14 11:01:14.836 ppp9 LCP MRU 1500 (0x010405DC)
*Jan 14 11:01:14.836 ppp9 LCP AuthProto CHAP (0x0305C22305)
*Jan 14 11:01:14.836 ppp9 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)
*Jan 14 11:01:14.836 ppp9 LCP MRRU 1524 (0x110405F4)
*Jan 14 11:01:14.836 ppp9 LCP EndpointDisc 1 LAC (0x1306014C4143)
*Jan 14 11:01:14.836 ppp9 LCP [Receive ConfAck][ACKsent to Open]
*Jan 14 11:01:14.856 ppp9 PPP Phase is AUTHENTICATING, by this end
*Jan 14 11:01:14.856 ppp9 CHAP O"LAC" id 1 LEN 24
*Jan 14 11:01:14.856 ppp9 LCP State is Open
*Jan 14 11:01:14.856 ppp9 CHAP "user@cisco.com" id 1 LEN 34
*Jan 14 11:01:14.856 ppp9 PPP Phase is FORWARDING, Attempting Forward
*Jan 14 11:01:14.856 VPDN CALL [uid:9]
*Jan 14 11:01:14.856 VPDN CALL [uid:9]
*Jan 14 11:01:14.857 [9]PPPoE 9 IEnas
*Jan 14 11:01:14.857 VPDN uid:9 ObtainedTX(10000000) RX(10000000)
*Jan 14 11:01:14.857 VPDN uid:9 ObtainedTX(10000000) RX(10000000)
```

\*Jan 14 11:01:14.857 VPDN uid:9 L2TUN socketsocketF600000C  
\*Jan 14 11:01:14.857 VPDN uid:9 L2-L2dataplaneidb  
\*Jan 14 11:01:14.857 VPDN MGR [uid:9] 192.168.1.2  
\*Jan 14 11:01:14.857 [9]PPPoE 9 LCP\_NEGOTIATIONPPP  
\*Jan 14 11:01:14.857 [9]PPPoE 9 (SSS)  
\*Jan 14 11:01:14.857 [9]PPPoE 9 SSS  
\*Jan 14 11:01:14.859 VPDNL2TUN socket  
\*Jan 14 11:01:14.859 VPDN uid:9swidb  
\*Jan 14 11:01:14.859 [9]PPPoE 9 (SSS)  
\*Jan 14 11:01:14.859 [9]PPPoE 9 SSS  
\*Jan 14 11:01:14.859 VPDNL2TUN socket  
\*Jan 14 11:01:14.859 VPDN MGR [uid:9] user@cisco.com  
\*Jan 14 11:01:14.859 VPDN uid:9 VPDN  
\*Jan 14 11:01:14.859 VPDN CALL [uid:9]  
\*Jan 14 11:01:14.860 ppp9 PPP  
\*Jan 14 11:01:14.860 [9]PPPoE 9 LCP\_NEGOTIATIONPPP  
\*Jan 14 11:01:14.860 [9]PPPoE 9

**LAC#show ppp**

Interface/ID OPEN+ Nego\*

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0xB4000009 LCP+ CHAP\* Fwded 0.0.0.0 user@cisco.com

**LAC#show PPP**

**LNS**

\*Jan 14 11:01:14.858 VPDNL2TUN socket

\*Jan 14 11:01:14.859 VPDN uid:13 L2TUN socket

\*Jan 14 11:01:14.859 VPDN uid:13 L2-L2dataplaneidb

\*Jan 14 11:01:14.860 VPDNL2TUN socket

\*Jan 14 11:01:14.860 VPDN uid:13 VPDN

\*Jan 14 11:01:14.860 PPP [2A970D95C0]

\*Jan 14 11:01:14.860 ppp13 PPP

\*Jan 14 11:01:14.860 ppp13 LCP [Jam Start][Initial to Closed]

\*Jan 14 11:01:14.860 ppp13 LCP rcvd CONFACK LEN 29

\*Jan 14 11:01:14.861 ppp13 LCP MRU 1500 (0x010405DC)

\*Jan 14 11:01:14.861 ppp13 LCP AuthProto CHAP (0x0305C22305)

\*Jan 14 11:01:14.861 ppp13 LCP MagicNumber 0xBC21F6F0 (0x0506BC21F6F0)

\*Jan 14 11:01:14.861 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.861 ppp13 LCP EndpointDisc 1 LAC (0x1306014C4143)

\*Jan 14 11:01:14.861 ppp13 PPP LCP rcv CONFACK

\*Jan 14 11:01:14.861 ppp13 LCP CONFACK LEN 30

\*Jan 14 11:01:14.861 ppp13 LCP MagicNumber 0xBC220EF6 (0x0506BC220EF6)

\*Jan 14 11:01:14.861 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.861 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.861 ppp13 LCP [DOWN][Closed to Initial]

\*Jan 14 11:01:14.861 ppp13 LCP [CLOSE][Initial to Initial]

\*Jan 14 11:01:14.861 ppp13 LCP [OPEN][Initial to Starting]

\*Jan 14 11:01:14.861 ppp13 LCP O CONFREQ [Starting] id 1 LEN 39

\*Jan 14 11:01:14.861 ppp13 LCP MRU 1492 (0x010405D4)

\*Jan 14 11:01:14.861 ppp13 LCP AuthProto CHAP (0x0305C22305)

\*Jan 14 11:01:14.861 ppp13 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)

\*Jan 14 11:01:14.861 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.861 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.861 ppp13 LCP [UP][Starting to REQsent]

\*Jan 14 11:01:14.862 ppp13 LCP CONFREQ [REQsent] id 1 LEN 30

\*Jan 14 11:01:14.862 ppp13 LCP MagicNumber 0xBC220F12 (0x0506BC220F12)

\*Jan 14 11:01:14.862 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.862 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.862 ppp13 PPP user@cisco.com

\*Jan 14 11:01:14.862 ppp13 LCP O CONFACK [REQsent] id 1 LEN 30

\*Jan 14 11:01:14.862 ppp13 LCP MagicNumber 0xBC220F12 (0x0506BC220F12)

\*Jan 14 11:01:14.862 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.862 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.862 ppp13 LCP [Receive ConfReq+][REQsent to ACKsent]

\*Jan 14 11:01:14.862 ppp13 LCP CONFNAK [ACKsent] id 1 LEN 8

\*Jan 14 11:01:14.862 ppp13 LCP MRU 1500 (0x010405DC)

\*Jan 14 11:01:14.862 ppp13 LCP O CONFREQ [ACKsent] id 2 LEN 39

\*Jan 14 11:01:14.862 ppp13 LCP MRU 1500 (0x010405DC)

\*Jan 14 11:01:14.862 ppp13 LCP AuthProto CHAP (0x0305C22305)

\*Jan 14 11:01:14.862 ppp13 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)

\*Jan 14 11:01:14.862 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.862 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.862 ppp13 LCP [Receive ConfNak/Rej][ACKsent to ACKsent]

\*Jan 14 11:01:14.863 ppp13 LCP CONFACK [ACKsent] id 2 LEN 39

\*Jan 14 11:01:14.863 ppp13 LCP MRU 1500 (0x010405DC)

\*Jan 14 11:01:14.863 ppp13 LCP AuthProto CHAP (0x0305C22305)

\*Jan 14 11:01:14.863 ppp13 LCP MagicNumber 0xBC21E526 (0x0506BC21E526)

\*Jan 14 11:01:14.863 ppp13 LCP MRRU 1524 (0x110405F4)

\*Jan 14 11:01:14.863 ppp13 LCP EndpointDisc 1 user@cisco.com  
(0x1310017573657240737572662E6F7267)

\*Jan 14 11:01:14.863 ppp13 LCP [Receive ConfAck][ACKsent to Open]

\*Jan 14 11:01:14.895 ppp13 PPP Phase is AUTHENTICATING, by this end

\*Jan 14 11:01:14.895 ppp13 CHAP O"LNS" id 2 LEN 27

\*Jan 14 11:01:14.895 ppp13 LCP State is Open

\*Jan 14 11:01:14.895 ppp13 CHAP "user@cisco.com" id 2 LEN 34

\*Jan 14 11:01:14.895 ppp13 PPP Phase is FORWARDING, Attempting Forward

\*Jan 14 11:01:14.895 ppp13 PPP

\*Jan 14 11:01:14.895 ppp13 PPP Phase is FORWARDING, Attempting Forward

\*Jan 14 11:01:14.896 VPDN uid:13user@cisco.com10000 Kbps

\*Jan 14 11:01:14.896 VPDN Vi3user@cisco.com10000 Kbps

L2X\_ADJ Vi3:allocated ctx1

\*Jan 14 11:01:14.896 VPDNL2TUN socket

\*Jan 14 11:01:14.896 Vi3 PPP

\*Jan 14 11:01:14.896 Vi3 CHAP O SUCCESS id 2 len 4

\*Jan 14 11:01:14.896 Vi3 MLP

\*Jan 14 11:01:14.896 Vi3 PPP

\*Jan 14 11:01:14.896 Vi3 MLP

\*Jan 14 11:01:14.896 Vi3 MLP vaccess

\*Jan 14 11:01:14.896 Vi3 MLP SSS

\*Jan 14 11:01:14.896 Vi3 MLP Virtual-template 1

\*Jan 14 11:01:14.897 Vi3 MLP SSS

\*Jan 14 11:01:14.897 Vi3 MLP Virtual-template 1

\*Jan 14 11:01:14.897 %LINK-3-UPDOWN Virtual-Access3

\*Jan 14 11:01:14.897 Vi3 MLP SSSVi4

\*Jan 14 11:01:14.897 PPP [2A970D9898]  
\*Jan 14 11:01:14.897 ppp14 PPP  
\*Jan 14 11:01:14.897 Vi4 MLP 10000010000  
\*Jan 14 11:01:14.897 Vi4 MLP Vi3  
\*Jan 14 11:01:14.897 Vi3 MLP frag37492MTU1488  
\*Jan 14 11:01:14.897 Vi4 MLP 1000010000  
\*Jan 14 11:01:14.897 Vi3 MLP Init1  
\*Jan 14 11:01:14.897 Vi4 MLP user@cisco.comVi3  
\*Jan 14 11:01:14.898 Vi3 MLP PPP handle[0x5900000E]SSS  
\*Jan 14 11:01:14.898 %LINEPROTO-5-UPDOWN Virtual-Access3  
\*Jan 14 11:01:14.898 Vi4 MLP  
\*Jan 14 11:01:14.915 %LINK-3-UPDOWN 4  
\*Jan 14 11:01:14.915 Vi4 PPP LCPMLP  
\*Jan 14 11:01:14.915 Vi3 PPP IPCP code[1] id[1]  
\*Jan 14 11:01:14.915 Vi4 PPP Phase is UP  
\*Jan 14 11:01:14.915 Vi4 IPCP CP[Initial]  
\*Jan 14 11:01:14.915 Vi4 IPCP [OPEN][Initial to Starting]  
\*Jan 14 11:01:14.915 Vi4 IPCP O CONFREQ [Starting] id 1 LEN 10  
\*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.10 (0x03060A0A0A0A)  
\*Jan 14 11:01:14.915 Vi4 IPCP [UP][Starting to REQsent]  
\*Jan 14 11:01:14.915 Vi3 PPP Process pending ncp packets  
\*Jan 14 11:01:14.915 Vi3 IPCP Vi4  
\*Jan 14 11:01:14.915 Vi4 IPCP I CONFREQ [REQsent] id 1 len 10  
\*Jan 14 11:01:14.915 Vi4 IPCP 0.0.0.0 (0x030600000000)  
\*Jan 14 11:01:14.915 Vi4 IPCP0.0.0.00.0.0.0  
\*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.18  
\*Jan 14 11:01:14.915 Vi4 IPCP O CONFNAK [REQsent] id 1 LEN 10



```
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.915 Vi4 IPCP [Receive ConfReq-][REQsent to REQsent]
*Jan 14 11:01:14.915 Vi4 IPCP I CONFACK [REQsent] id 1 len 10
*Jan 14 11:01:14.915 Vi4 IPCP 10.10.10.10 (0x03060A0A0A0A)
*Jan 14 11:01:14.915 Vi4 IPCP [Receive ConfAck][REQsent to ACKrcvd]
*Jan 14 11:01:14.916 %LINEPROTO-5-UPDOWN 4
*Jan 14 11:01:14.936 Vi4 IPCP CONFREQ [ACKrcvd] id 2 LEN 10
*Jan 14 11:01:14.936 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.936 Vi4 IPCP O CONFACK [ACKrcvd] id 2 LEN 10
*Jan 14 11:01:14.936 Vi4 IPCP 10.10.10.18 (0x03060A0A0A12)
*Jan 14 11:01:14.936 Vi4 IPCP [Receive ConfReq+][ACKrcvd to Open]
*Jan 14 11:01:14.965 Vi4 IPCP State is Open
*Jan 14 11:01:14.965 Vi4AVLtopoid 010.10.10.18
*Jan 14 11:01:14.965 Vi4 IPCP 10.10.10.18
```

**LNS#show ppp**

```
Interface/ID OPEN+ Nego*
```

```
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```

```
Vi4 IPCP+ LocalT 10.10.10.18 user@cisco.com
```

```
Vi3 LCP+ CHAP+ LocalT 10.10.10.18 user@cisco.com
```

**LNS#show PPP**

```
4
```

```
user@cisco.com
```

```
user@cisco.com
```

```
[1] user@cisco.com
```

```
LNS
```

```
[1] user@cisco.com
```

00:00:1010000 load 1/255

12192 frag15

0/0/

00

0/0/ 0

0x0 0x3

1 (255)

LAC:Vi3 (192.168.1.1)00:00:10 37500 1488 frag

## 相关信息

- [配置客户端初始化的拨入VPDN建立隧道](#)