

# Configuração VPDN sem AAA

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## [Introduction](#)

Este documento apresenta um exemplo de configuração no qual o tunelamento de protocolo da camada 2 (L2TP) da VPDN (Rede Virtual Privada de Dialup) é configurado para chamadas de discagem ISDN e analógicas. Não há servidor de autenticação, autorização e contabilidade (AAA) envolvido nessa configuração.

O L2TP é um padrão da Internet Engineering Task Force (IETF) que combina os melhores recursos de dois protocolos de tunelamento existentes:

- Cisco Layer 2 Forwarding (L2F)
- Protocolo de Encapsulamento Ponto a Ponto da Microsoft (PPTP - Point-to-Point Tunneling Protocol)

Nesta configuração, usamos L2TP adicionando o protocolo de comando L2TP. L2F é o padrão.

A Cisco recomenda que você use o comando **vpdn-group**, introduzido no Cisco IOS<sup>®</sup> Software Release 12.0(1)T, para definir os parâmetros da VPDN no L2TP Access Concentrator (LAC) e no L2TP Network Server (LNS). No entanto, se deseja usar os comandos `vpdn incoming` e `vpdn outgoing`, consulte [Configuring Virtual Private Dialup Networks \(Configurando Redes de Discagem Privada Virtual\)](#).

As principais características dessa configuração são as seguintes:

- O LAC: identifica um cliente VPDN com base no nome de domínio recebido na resposta de autenticação (nesta instalação, Challenge Handshake Authentication Protocol [CHAP]). utiliza seus parâmetros de VPDN local para ativar o túnel e a sessão com o LNS.
- O LNS: Use seus parâmetros VPDN locais para aceitar a sessão e o túnel VPDN do LAC. autentica o usuário remoto localmente. atribui um endereço IP do conjunto local para o

cliente.

## Prerequisites

### Componentes Utilizados

Esta configuração foi desenvolvida e testada utilizando as versões de software e hardware abaixo.

- Linha principal do Software Cisco IOS versão 12.2. O recurso IP+ é necessário para VPDN.
- Um Cisco AS5300 (o LAC) com uma placa E1 e uma placa Mica. Ele pode aceitar chamadas ISDN e analógicas.

As informações neste documento foram criadas a partir de dispositivos em um ambiente de laboratório específico. All of the devices used in this document started with a cleared (default) configuration. Se você estiver trabalhando em uma rede ativa, certifique-se de que entende o impacto potencial de qualquer comando antes de utilizá-lo.

### Conventions

Consulte as [Convenções de Dicas Técnicas da Cisco para obter mais informações sobre convenções de documentos.](#)

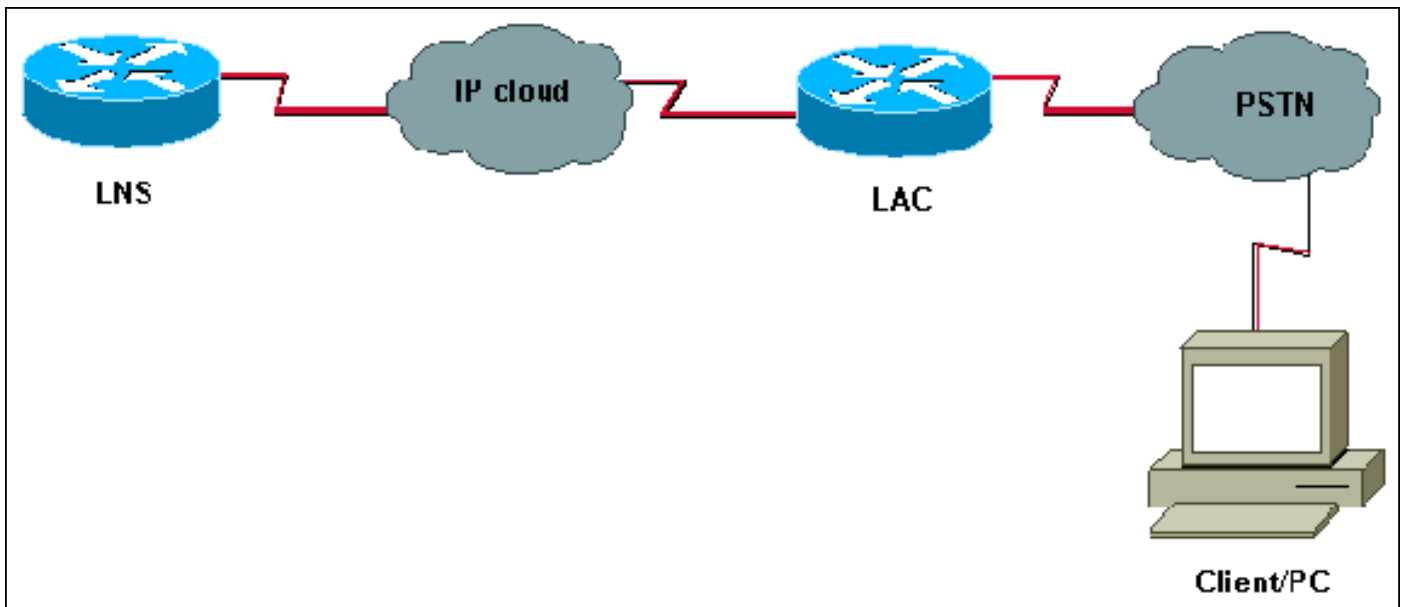
## Configurar

Nesta seção, você encontrará informações para configurar os recursos descritos neste documento.

Nota: Use a Command Lookup Tool (somente clientes registrados) para obter mais informações sobre os comandos usados neste documento.

### Diagrama de Rede

Este documento utiliza a seguinte configuração de rede:



## Configurações

### LAC

```

version 12.2
service timestamps debug datetime msec
service timestamps log datetime msec
!
hostname LAC
! spe 2/0 2/9
  firmware location system:/ucode/mica_port_firmware
!
!
modem country mica belgium
!
vpdn enable
! -- Enables VPDN. ! vpdn search-order domain ! -- VPDN
! tunnel authorization is based on the domain name ! --
! (the default is DNIS). ! vpdn-group GroupCisco request-
dialin protocol l2tp ! -- L2TP is used instead of the
! default (L2F). domain cisco.com ! -- The domain name
! cisco.com is used to identify a VPDN user when ! --
! receiving the CHAP response from the user. initiate-to
ip 10.48.74.35 ! -- The tunnel and session are
! initialized to the ethernet ip address of the ! -- LNS
! 10.48.74.35. l2tp tunnel password cisco ! -- for tunnel
! authentication ! isdn switch-type primary-net5 !
controller E1 0 clock source line primary pri-group
timeslots 1-31 ! interface Ethernet0 ip address
10.48.75.7 255.255.254.0 ! interface Serial0:15 no ip
address encapsulation ppp dialer rotary-group 1 isdn
switch-type primary-net5 isdn incoming-voice modem !
interface Group-Async1 no ip address encapsulation ppp
async mode dedicated ppp authentication chap pap group-
range 1 120 ! interface Dialer1 no ip address
encapsulation ppp ppp authentication chap pap ! ip
classless ip route 0.0.0.0 0.0.0.0 10.48.74.1 ! line con
0 exec-timeout 0 0 line 1 120 modem InOut transport
input all line aux 0 line vty 0 4 exec-timeout 0 0
password cisco login !

```

### LNS

```

version 12.2
service timestamps debug datetime msec
service timestamps log datetime msec
!
hostname LNS
!
username UserISDN@cisco.com password 0 cisco
username UserAnalog@cisco.com password 0 cisco
! -- The LNS authenticates the remote users locally. !
vpdn enable ! -- Enables VPDN. ! vpdn-group VPDN accept-
dialin ! -- Enables the LNS to accept VPDN request.
protocol l2tp !-- L2TP is used instead of the L2F
(default). virtual-template 1 ! -- For each user, the
virtual-template 1 is used to terminate the PPP session.
terminate-from hostname LAC ! -- The LNS accepts VPDN
request from router LAC. l2tp tunnel password cisco ! --
for tunnel authentication ! ! ! interface Loopback1 ip
address 12.12.12.1 255.255.255.255 no ip route-cache no
ip mroute-cache ! interface Ethernet0 ip address
10.48.74.35 255.255.254.0 no ip route-cache no ip
mroute-cache no cdp enable ! interface Virtual-Template1
! -- The PPP session is terminated in the virtual-access
cloned from this ! -- virtual-template ip unnumbered
Loopback1 peer default ip address pool GroupCisco ppp
authentication chap pap ! ip local pool GroupCisco
12.12.12.2 12.12.12.50 ! -- The LNS assigns an ip
address to the remote user ip classless ip route 0.0.0.0
0.0.0.0 10.48.74.1

```

**Observação:** nas configurações acima, configuramos as interfaces dialer 1 e group-async1 com as opções mínimas de Point to Point Protocol (PPP).

Para permitir mais funcionalidades em PPP (ppp multilink, compressão, etc.), você precisa adicionar estas funcionalidades nessas interfaces e no modelo virtual 1 do LNS.

**Importante:** A regra é que todas as opções PPP definidas nas interfaces do discador 1 e do grupo assíncrono1 devem ser configuradas no modelo virtual 1 do LNS.

O molde virtual 1 recebe uma "cópia" de opções LCP negociadas entre o LAC e o cliente. Se uma opção que foi negociada entre o LAC e o cliente não estiver configurada no molde virtual 1, o LNS limpará a sessão VPDN. No entanto, para permitir que o LNS renegocie o LCP com o cliente, defina os comandos **lcp renegotiation always** ou **lcp renegotiation on-mismatch** no grupo VPDN.

**Observação:** por padrão, o LAC e o LNS usam seu nome de host nos pacotes de troca L2TP. Para modificar esse comportamento, defina o nome local do comando no grupo vpdn. Vamos ver um exemplo de uma configuração de LNS:

```

vpdn-group VPDN
accept-dialin
protocol l2tp
virtual-template 1
terminate-from hostname LAC
local name LNS-cental

```

**Verificar**

Esta seção fornece informações que você pode usar para confirmar se sua configuração está funcionando adequadamente.

A [Output Interpreter Tool \(somente clientes registrados\) \(OIT\) oferece suporte a determinados comandos show](#). Use a OIT para exibir uma análise da saída do comando show.

- **show vpdn tunnel** — Exibe informações sobre todos os túneis L2F e L2TP ativos no formato de estilo de resumo.
- **show caller ip** — Exibe um resumo das informações do chamador para o endereço IP fornecido.

## Troubleshoot

Esta seção fornece informações que podem ser usadas para o troubleshooting da sua configuração.

### Comandos para Troubleshooting

**Note:** Consulte [Informações Importantes sobre Comandos de Depuração antes de usar comandos debug](#).

No LAC:

- **debug vpdn event** — Exibe erros e eventos L2TP que fazem parte do estabelecimento ou encerramento normal de túnel para VPDNs.
- **debug vpdn l2x-event** — Exibe mensagens sobre eventos que fazem parte do estabelecimento ou encerramento normal de túneis para l2x.
- **debug vpdn l2x-error**—Exibe os erros do protocolo L2x que impedem seu estabelecimento ou sua operação normal.
- **debug ppp negotiation** — faz o comando debug ppp exibir pacotes PPP transmitidos durante a inicialização PPP, em que as opções PPP são negociadas.
- **debug isdn q931** — exibe informações sobre configuração de chamada e subdivisão de conexões de rede ISDN (Camada 3) entre o roteador local (lado do usuário) e a rede.
- **debug modem**—Exibe a atividade da linha do modem em um servidor de acesso.

No LNS:

- **debug vpdn event**
- **debug vpdn l2x-event**
- **debug vpdn l2x-error**
- **debug vtemplate** — exibe informações de clonagem para uma interface de acesso virtual a partir do tempo em que elas são clonadas de um molde virtual até o tempo em que a interface de acesso virtual cai, quando a ligação termina.
- **negociação de debug ppp**

Abaixo está uma chamada ISDN do cliente UserISDN@cisco.com.

**debug Comandos no LAC**

O LAC recebe uma chamada ISDN do número 8101.

LAC#

\*Feb 1 14:45:09.684: ISDN Se0:15: RX <- SETUP pd = 8 callref = 0x3D03

\*Feb 1 14:45:09.688: Sending Complete

\*Feb 1 14:45:09.688: Bearer Capability i = 0x8890

\*Feb 1 14:45:09.688: Channel ID i = 0xA18387

\*Feb 1 14:45:09.688: Calling Party Number i = 0xA1, '8101', Plan:ISDN, Type:National

\*Feb 1 14:45:09.688: Called Party Number i = 0x81, '214', Plan:ISDN, Type:Unknown

\*Feb 1 14:45:09.692: %LINK-3-UPDOWN: Interface Serial0:6, changed state to up

\*Feb 1 14:45:09.692: Se0:6 PPP: Treating connection as a callin

\*Feb 1 14:45:09.692: Se0:6 PPP: Phase is ESTABLISHING, Passive Open [0 sess, 0 load]

\*Feb 1 14:45:09.692: Se0:6 LCP: State is Listen

\*Feb 1 14:45:09.696: ISDN Se0:15: TX -> CALL\_PROC pd = 8 callref = 0xBD03

\*Feb 1 14:45:09.696: Channel ID i = 0xA98387

\*Feb 1 14:45:09.696: ISDN Se0:15: TX -> CONNECT pd = 8 callref = 0xBD03

\*Feb 1 14:45:09.696: Channel ID i = 0xA98387

*! -- The ISDN phase is finished and the B channel is up ! -- as soon as the LAC receives RX <- CONNECT\_ACK.*

\*Feb 1 14:45:09.752: ISDN Se0:15: RX <- CONNECT\_ACK pd = 8 callref = 0x3D03

\*Feb 1 14:45:09.752: ISDN Se0:15: CALL\_PROGRESS: CALL\_CONNECTED call id 0x90, bchan 6, dsl 0

*! -- PPP starts with LCP phase : authentication protocol and other LCP ! -- options (compression, multilink, and so on) are negotiated. ! -- In the debug below, only chap is negotiated.*

\*Feb 1 14:45:09.844: Se0:6 LCP: I CONFREQ [Listen] id 179 len 10

\*Feb 1 14:45:09.844: Se0:6 LCP: MagicNumber 0x5B90B785 (0x05065B90B785)

\*Feb 1 14:45:09.844: Se0:6 LCP: O CONFREQ [Listen] id 1 len 15

\*Feb 1 14:45:09.844: Se0:6 LCP: AuthProto CHAP (0x0305C22305)

\*Feb 1 14:45:09.844: Se0:6 LCP: MagicNumber 0x1A9DC8A5 (0x05061A9DC8A5)

\*Feb 1 14:45:09.844: Se0:6 LCP: O CONFACK [Listen] id 179 len 10

\*Feb 1 14:45:09.844: Se0:6 LCP: MagicNumber 0x5B90B785 (0x05065B90B785)

\*Feb 1 14:45:09.876: Se0:6 LCP: I CONFACK [ACKsent] id 1 len 15

\*Feb 1 14:45:09.876: Se0:6 LCP: AuthProto CHAP (0x0305C22305)

\*Feb 1 14:45:09.876: Se0:6 LCP: MagicNumber 0x1A9DC8A5 (0x05061A9DC8A5)

\*Feb 1 14:45:09.876: Se0:6 LCP: State is Open

\*Feb 1 14:45:09.876: Se0:6 PPP: Phase is AUTHENTICATING, by this end [0 sess, 0 load]

*! -- The LAC sends the client a CHAP challenge.*

\*Feb 1 14:45:09.876: Se0:6 CHAP: O CHALLENGE id 1 len 24 from "LAC".

*! -- The LAC receives the CHAP response from the client with username ! -- UserISDN@cisco.com.*

\*Feb 1 14:45:09.924: Se0:6 CHAP: I RESPONSE id 1 len 39 from "UserISDN@cisco"

*! -- The LAC checks out if UserISDN@cisco.com is a VPDN client or not. ! -- Because the domain cisco.com is configured in the vpdn-group ! -- GroupCisco, UserISDN@cisco.com is a VPDN client. The LAC takes ! -- the VPDN parameters in the vpdn-group where the domain name ! -- cisco.com is located.*

\*Feb 1 14:45:09.924: Se0:6 PPP: Phase is FORWARDING [0 sess, 0 load]

\*Feb 1 14:45:09.924: Se0:6 VPDN: Got DNIS string 214

\*Feb 1 14:45:09.924: Se0:6 VPDN: Looking for tunnel -- cisco.com --

\*Feb 1 14:45:09.928: Se0:6 VPDN/RPMS/GroupCisco: Got tunnel info for cisco.com

\*Feb 1 14:45:09.928: Se0:6 VPDN/RPMS/GroupCisco: LAC

\*Feb 1 14:45:09.928: Se0:6 VPDN/RPMS/GroupCisco: l2tp-busy-disconnect yes

\*Feb 1 14:45:09.928: Se0:6 VPDN/RPMS/GroupCisco: IP 10.48.74.35

\*Feb 1 14:45:09.928: Se0:6 VPDN/GroupCisco: curlvl 1 Address 0: 10.48.74.35, priority 1

\*Feb 1 14:45:09.928: Se0:6 VPDN/GroupCisco: Select non-active address 10.48.74.35, priority 1

\*Feb 1 14:45:09.928: Se0:6 VPDN: Find LNS process created

\*Feb 1 14:45:09.928: Tnl 2027 L2TP: SM State idle

*! -- In order to bring up the tunnel, the LAC sends SCCRQ (Start Control Request) to the LNS. ! -- A CHAP challenge is included in the packet.*

\*Feb 1 14:45:09.928: Tnl 2027 L2TP: O SCCRQ

\*Feb 1 14:45:09.928: Tnl 2027 L2TP: Tunnel state change from idle to wait-ctl-reply

\*Feb 1 14:45:09.928: Tnl 2027 L2TP: SM State wait-ctl-reply

\*Feb 1 14:45:09.928: Se0:6 VPDN: Forward to address 10.48.74.35

\*Feb 1 14:45:09.928: Se0:6 VPDN: Pending

\*Feb 1 14:45:09.932: Se0:6 VPDN: Process created

*! -- The LAC receives from the LNS SCCRP (Start Control Connection Reply). ! -- The response to its own challenge and another chap challenge from the LNS ! -- are included in the packet.*

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: I SCCRP from LNS

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: Got a challenge from remote peer, LNS

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: Got a response from remote peer, LNS

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: Tunnel Authentication success

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: Tunnel state change from wait-ctl-reply to established

*! -- The LAC sends to the LNS SCCCN (Start Control Connection Connected). ! -- The response to LNS's challenge is included in the packet.*

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: O SCCCN to LNS tnlid 11514

\*Feb 1 14:45:09.956: Tnl 2027 L2TP: SM State established

\*Feb 1 14:45:09.956: Se0:6 VPDN: Forwarding...

\*Feb 1 14:45:09.956: Se0:6 VPDN: Bind interface

direction=1 \*Feb 1 14:45:09.956: Tnl/Cl 2027/18 L2TP: Session FS enabled \*Feb 1 14:45:09.956:  
Tnl/Cl 2027/18 L2TP: Session state change from idle to wait-for-tunnel \*Feb 1 14:45:09.960:  
Se0:6 Tnl/Cl 2027/18 L2TP: Create session \*Feb 1 14:45:09.960: Tnl 2027 L2TP: SM State  
established ! -- *The Tunnel is up. The LAC brings up the session for the user ! --*  
*UserISDN@cisco.com. For that, it sends ICRQ (Incoming Call ReQuest).* \*Feb 1 14:45:09.960: Se0:6  
Tnl/Cl 2027/18 L2TP: O ICRQ to LNS 11514/0 \*Feb 1 14:45:09.960: Se0:6 Tnl/Cl 2027/18 L2TP:  
Session state change from wait-for-tunnel to wait-reply \*Feb 1 14:45:09.960: Se0:6 VPDN:  
UserISDN@cisco.com is forwarded ! -- *After receiving ICRP (Incoming Call Reply, we don't see it*  
*in the debug) ! -- the LAC sends ICCN Incoming Call Connected. The VPDN session is up . ! --*  
*Then the LAC forwards to the LNS what it has negotiated with the client ! -- (LCP options) along*  
*with the username and chap password of the client.* \*Feb 1 14:45:10.008: Se0:6 Tnl/Cl 2027/18  
L2TP: O ICCN to LNS 11514/6 \*Feb 1 14:45:10.008: Se0:6 Tnl/Cl 2027/18 L2TP: Session state change  
from wait-reply to established \*Feb 1 14:45:10.960: %LINEPROTO-5-UPDOWN: Line protocol on  
Interface Serial0:6, changed state to up \*Feb 1 14:45:15.692: %ISDN-6-CONNECT: Interface  
Serial0:6 is now connected to 8101 UserISDN@cisco.com LAC#

## debug Comandos no LNS

### O LNS recebe SCCRQ de LAC.

LNS#  
\*Mar 1 02:13:06.499: L2TP: I SCCRQ from LAC tnl 2027  
\*Mar 1 02:13:06.507: Tnl 11514 L2TP: Got a challenge in SCCRQ, LAC  
\*Mar 1 02:13:06.511: Tnl 11514 L2TP: New tunnel created for remote LAC, address  
10.48.75.7  
*! -- The LNS replies with SCCRP which includes the CHAP response to LAC's ! -- challenge and a*  
*CHAP challenge.* \*Mar 1 02:13:06.515: Tnl 11514 L2TP: O SCCRP to LAC tnlid 2027 \*Mar 1  
02:13:06.523: Tnl 11514 L2TP: Tunnel state change from idle to wait-ctl-reply ! -- *The LNS*  
*receives SCCCN.* \*Mar 1 02:13:06.535: Tnl 11514 L2TP: I SCCCN from LAC tnl 2027 \*Mar 1  
02:13:06.539: Tnl 11514 L2TP: Got a Challenge Response in SCCCN from LAC \*Mar 1 02:13:06.543:  
Tnl 11514 L2TP: Tunnel Authentication success \*Mar 1 02:13:06.543: Tnl 11514 L2TP: Tunnel state  
change from wait-ctl-reply to established \*Mar 1 02:13:06.547: Tnl 11514 L2TP: SM State  
established ! -- *The tunnel is up. The LNS receives ICRQ to bring up the session.* \*Mar 1  
02:13:06.555: Tnl 11514 L2TP: I ICRQ from LAC tnl 2027 \*Mar 1 02:13:06.559: Tnl/Cl 11514/6 L2TP:  
Session FS enabled \*Mar 1 02:13:06.563: Tnl/Cl 11514/6 L2TP: Session state change from idle to  
wait-connect \*Mar 1 02:13:06.567: Tnl/Cl 11514/6 L2TP: New session created ! -- *The LNS replies*  
*with ICRP (Incoming Call Reply).* \*Mar 1 02:13:06.567: Tnl/Cl 11514/6 L2TP: O ICRP to LAC 2027/18  
*! -- The LNS receives ICCN (Incoming Call coNnected). The VPDN sesion is up, ! -- then the LNS*  
*receives the LCP layer along with the username ! -- and chap password of the client. ! -- A*  
*virtual-access is cloned from the virtual-template 1.* \*Mar 1 02:13:06.583: Tnl/Cl 11514/6 L2TP:  
I ICCN from LAC tnl 2027, cl 18 \*Mar 1 02:13:06.591: Tnl/Cl 11514/6 L2TP: Session state change  
from wait-connect to established \*Mar 1 02:13:06.591: Vt1 VTEMPLATE: Unable to create and clone  
vaccess \*Mar 1 02:13:06.595: Vil VTEMPLATE: Reuse Vil, recycle queue size 1 \*Mar 1 02:13:06.595:  
Vil VTEMPLATE: Hardware address 0000.0c4a.4314 \*Mar 1 02:13:06.599: Vil VPDN: Virtual interface  
created for UserISDN@cisco.com \*Mar 1 02:13:06.603: Vil PPP: Phase is DOWN, Setup [0 sess, 0  
load] \*Mar 1 02:13:06.603: Vil VPDN: Clone from Vtemplate 1 filterPPP=0 blocking \*Mar 1  
02:13:06.607: Vil VTEMPLATE: Has a new cloneblk vtemplate, now it has vtemplate \*Mar 1  
02:13:06.611: Vil VTEMPLATE: \*\*\*\*\* CLONE VACCESS1 \*\*\*\*\* \*Mar 1 02:13:06.615:  
Vil VTEMPLATE: Clone from Virtual-Templat1 interface Virtual-Access1 default ip address no ip  
address encaps ppp ip unnumbered Loopback1 end \*Mar 1 02:13:07.095: %LINK-3-UPDOWN: Interface  
Virtual-Access1, changed state to up \*Mar 1 02:13:07.099: Vil PPP: Using set call direction \*Mar  
1 02:13:07.103: Vil PPP: Treating connection as a callin \*Mar 1 02:13:07.103: Vil PPP: Phase is  
ESTABLISHING, Passive Open [0 sess, 0 load] \*Mar 1 02:13:07.107: Vil LCP: State is Listen \*Mar 1  
02:13:07.111: Vil VPDN: Bind interface direction=2 \*Mar 1 02:13:07.111: Vil LCP: I FORCED  
CONFREQ len 11 \*Mar 1 02:13:07.115: Vil LCP: AuthProto CHAP (0x0305C22305) \*Mar 1 02:13:07.119:  
Vil LCP: MagicNumber 0x1A9DC8A5 (0x05061A9DC8A5) \*Mar 1 02:13:07.119: Vil VPDN: PPP LCP accepted  
rcv CONFACK \*Mar 1 02:13:07.123: Vil LCP: I FORCED CONFACK len 6 \*Mar 1 02:13:07.127: Vil LCP:  
MagicNumber 0x5B90B785 (0x05065B90B785) \*Mar 1 02:13:07.131: Vil VPDN: PPP LCP accepted sent  
CONFACK ! -- *The LNS authenticates the user. It doesn't send a new CHAP challenge ! -- (the*  
*debug may be confusing) since it has received the CHAP challenge ! -- and response from the LAC.*  
\*Mar 1 02:13:07.131: Vil PPP: Phase is AUTHENTICATING, by this end [0 sess, 0 load] \*Mar 1  
02:13:07.135: Vil CHAP: O CHALLENGE id 2 len 24 from "LNS" \*Mar 1 02:13:07.143: Vil CHAP: I  
RESPONSE id 1 len 39 from "UserISDN@cisco.com" \*Mar 1 02:13:07.151: Vil CHAP: O SUCCESS id 1 len

```
4 *Mar 1 02:13:07.155: Vi1 PPP: Phase is UP [0 sess, 0 load] ! -- The IPCP phase starts. ! --
The IP address 12.12.12.2 is assigned to the client. *Mar 1 02:13:07.159: Vi1 IPCP: O CONFREQ
[Closed] id 1 len 10 *Mar 1 02:13:07.163: Vi1 IPCP: Address 12.12.12.1 (0x03060C0C0C01) *Mar 1
02:13:07.215: Vi1 IPCP: I CONFREQ [REQsent] id 34 len 10 *Mar 1 02:13:07.219: Vi1 IPCP: Address
0.0.0.0 (0x030600000000) *Mar 1 02:13:07.223: Vi1 IPCP: Pool returned 12.12.12.2 *Mar 1
02:13:07.227: Vi1 IPCP: O CONFNAK [REQsent] id 34 len 10 *Mar 1 02:13:07.231: Vi1 IPCP: Address
12.12.12.2 (0x03060C0C0C02) *Mar 1 02:13:07.235: Vi1 IPCP: I CONFACK [REQsent] id 1 len 10 *Mar
1 02:13:07.239: Vi1 IPCP: Address 12.12.12.1 (0x03060C0C0C01) *Mar 1 02:13:07.271: Vi1 IPCP: I
CONFREQ [ACKrcvd] id 35 len 10 *Mar 1 02:13:07.275: Vi1 IPCP: Address 12.12.12.2
(0x03060C0C0C02) *Mar 1 02:13:07.279: Vi1 IPCP: O CONFACK [ACKrcvd] id 35 len 10 *Mar 1
02:13:07.283: Vi1 IPCP: Address 12.12.12.2 (0x03060C0C0C02) *Mar 1 02:13:07.287: Vi1 IPCP: State
is Open *Mar 1 02:13:07.295: Vi1 IPCP: Install route to 12.12.12.2 ! -- The virtual-access is
up. *Mar 1 02:13:08.159: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access1,
changed state to up LNS#
```

## show Comandos

```
LAC#show vpdn tunnel
```

```
L2TP Tunnel Information Total tunnels 1 sessions 1
LocID RemID Remote Name State Remote Address Port Sessions
 36556 45655 LNS est 10.48.74.35 1701 1
%No active L2F tunnels
%No active PPTP tunnels
%No active PPPoE tunnels
LAC#
```

```
LNS#show vpdn tunnel
```

```
L2TP Tunnel Information Total tunnels 1 sessions 1
LocID RemID Remote Name State Remote Address Port Sessions
 45655 36556 LAC est 10.48.75.7 1701 1
%No active L2F tunnels
%No active PPTP tunnels
%No active
```

```
LNS#show caller ip
```

```
Line User IP Address Local Number Remote Number <->
Vi1 UserISDN@cisco.com \
12.12.12.2 214 8101 in
LNS#
```

## [Informações Relacionadas](#)

- [Suporte à tecnologia de discagem e acesso](#)
- [Suporte Técnico e Documentação - Cisco Systems](#)