

# 通过基于区域的防火墙路由器且使用 NAT 的 PPTP 连接配置示例

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## 简介

此示例配置说明如何使用基于区域的防火墙和 NAT 配置将路由器配置为充当点对点隧道协议 (PPTP) 连接的终端。

## 先决条件

### 要求

本文档没有任何特定的要求。

### 使用的组件

本文档中的信息基于以下软件和硬件版本：

- Cisco 路由器 871
- Cisco IOS 软件版本 12.4T 和以后

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。

### 规则

有关文档规则的详细信息，请参阅 [Cisco 技术提示规则](#)。

## 背景信息

内部网络中有一个服务器，Internet 上的用户在通过终止于面向 Internet 的路由器的 PPTP 连接后可以访问该服务器。外部用户对内部网络中主机的所有其它访问将被拒绝。

- 内部服务器的 IP 地址 - 10.22.22.10
- 远程客户端 PC 的 IP 地址 - 10.66.83.50

允许内部网络的所有用户对 Internet 进行无限制的访问。这些内部用户使用路由器上的 PAT 来访问 Internet。来自内部用户的所有数据流在通过路由器时都要经过检查。

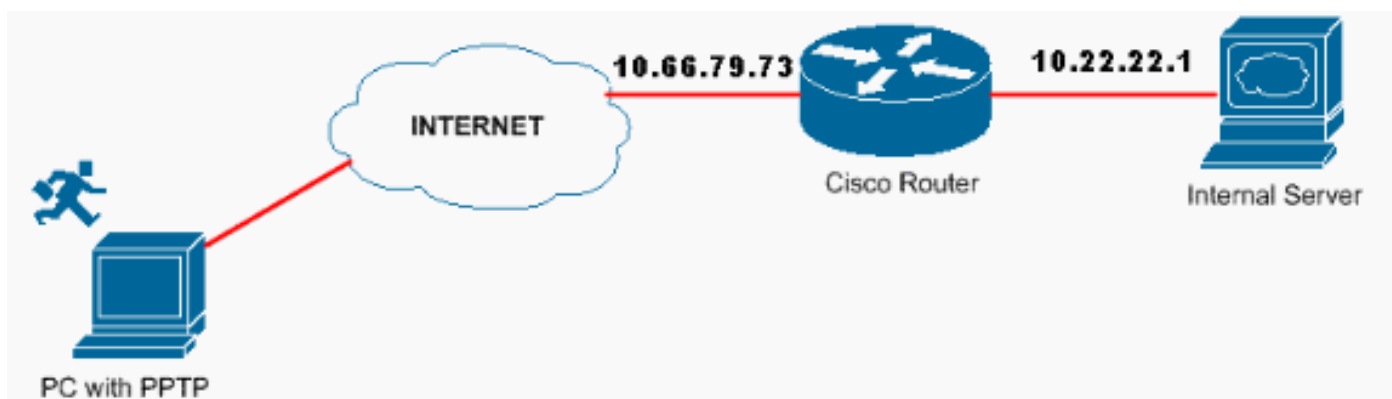
## 配置

本部分提供有关如何配置本文档所述功能的信息。

**注意：** 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

本文档使用以下网络设置：



## PPTP 路由器配置

本文档使用以下配置。

这些 Cisco IOS 命令适用于所有支持 PPTP 的平台。

```
Router#configure terminal Enter configuration commands, one per line. End with CNTL/Z. !---  
Enable virtual private dial-up networking. Router(config)#vpdn enable !--- Enters VPDN group  
configuration mode for the specified VPDN group. Router(config)#vpdn-group 1 !--- Enters VPDN  
accept-dialin configuration mode !--- and enables the router to accept dial-in requests.  
Router(config-vpdn)#accept-dialin !--- Specifies which PPTP protocol is used. Router(config-  
vpdn-acc-in)#protocol pptp !--- Specifies the virtual template that is used !--- in order to  
clone the virtual access interface. Router(config-vpdn-acc-in)#virtual-template 1 Router(config-  
vpdn-acc-in)#exit Router(config)#ip local pool defaultpool 192.168.100.1 192.168.100.254 !---  
Create virtual-template interface used for cloning !--- virtual-access interfaces with the use  
of address pool defaultpool !--- with Challenge Authentication Protocol (CHAP) authentication  
and MS-CHAP. Router(config)#interface virtual-template 1 Router(config-if)#encapsulation ppp  
Router(config-if)#peer default ip address pool defaultpool Router(config-if)#ip unnumbered  
FastEthernet4 Router(config-if)#ppp authentication chap ms-chap
```

注意：非默认命令以**粗体**显示。

## 路由器

```
Router#show run Building configuration... Current
configuration : 3666 bytes ! version 12.4 no service pad
service timestamps debug datetime msec service
timestamps log datetime msec no service password-
encryption ! hostname Router ! boot-start-marker boot
system flash flash:c870-advsecurityk9-mz.124-20.T3.bin
boot-end-marker ! logging message-counter syslog enable
password cisco ! aaa new-model ! ! aaa authentication
login VTY local ! !--- Define local authentication for
PPP. ! aaa authentication ppp default local ! ! aaa
session-id common ! ! dot11 syslog ip source-route ! !
ip cef ip domain name cisco.com ! ! vpdn enable ! !---
Enable VDPN. ! vpdn-group PPTP-VPDN ! !--- Default PPTP
VPDN group. ! accept-dialin protocol pptp virtual-
template 1 ! ! !--- Defining local username and
password. ! username cisco privilege 15 password 0 cisco
! archive log config hidekeys ! ! ip ssh version 1 ! !--
- Defining Zone-Based Policy Firewall Class-Maps. !
class-map type inspect match-all PPTP-Pass-Through-
Traffic match access-group name PPTP-PASS-THROUGH class-
map type inspect match-any All-Traffic match protocol
tcp match protocol udp match protocol icmp class-map
type inspect match-all Router-Access-Traffic match
access-group name Router-Access class-map type inspect
match-all PPTP-Terminated-Traffic match access-group
name PPTP-TERMINATED ! ! !--- Defining Zone-Based Policy
Firewall Policy-Maps. ! policy-map type inspect PPTP-In-
Policy class type inspect All-Traffic inspect class
class-default drop policy-map type inspect Out-In-Policy
class type inspect PPTP-Pass-Through-Traffic pass class
class-default drop policy-map type inspect In-Out-Policy
class type inspect PPTP-Pass-Through-Traffic pass class
type inspect All-Traffic inspect class class-default
drop policy-map type inspect Out-Self-Policy class type
inspect Router-Access-Traffic pass class type inspect
PPTP-Terminated-Traffic pass class class-default drop !
!--- Defining the different zones. ! zone security
outside zone security inside zone security pptp ! !---
Defining the zone-pairs for different flows of traffic.
! zone-pair security outside-self source outside
destination self service-policy type inspect Out-Self-
Policy zone-pair security pptp-in source pptp
destination inside service-policy type inspect PPTP-In-
Policy zone-pair security inside-outside source inside
destination outside service-policy type inspect In-Out-
Policy ! ! interface FastEthernet0 ! interface
FastEthernet1 ! interface FastEthernet2 ! interface
FastEthernet3 ! interface FastEthernet4 description
"Connected to Outside Network" ip address 10.66.79.73
255.255.255.224 ! !--- Defines the interface as external
for NAT. ! ip nat outside ip virtual-reassembly ! !---
Defines the interface as part of the outside zone. !
zone-member security outside speed 100 full-duplex ! !--
- Create virtual-template interface used for cloning !--
- virtual-access interfaces with the use of address pool
defaultpool !--- with CHAP authentication and MS-CHAP. !
interface Virtual-Template1 ip unnumbered FastEthernet4
! !--- Defines the interface as part of the pptp zone. !
zone-member security pptp peer default ip address pool
defaultpool ppp authentication chap ms-chap ! interface
```

```

Dot11Radio0 no ip address speed basic-1.0 basic-2.0
basic-5.5 6.0 9.0 basic-11.0 12.0 18.0 24.0 36.0 48.0
54.0 station-role root ! interface Vlan1 description
"Connected to Inside Network" ip address 10.22.22.1
255.255.255.0 ! !--- Defines the interface as internal
for NAT. ! ip nat inside ip virtual-reassembly ! !---
Defines the interface as part of the inside zone. !
zone-member security inside ! !--- Enable Create IP pool
named test and specify IP range. ! ip local pool
defaultpool 192.168.100.1 192.168.100.254 ip forward-
protocol nd ip route 0.0.0.0 0.0.0.0 10.66.79.65 no ip
http server no ip http secure-server ! !--- Indicates
that any packets received on the inside interface !---
matched by access list NO-NAT share one public IP
address (the !--- address on Fa4). !--- Note that
traffic from the internal network to the remote clients
!--- is not natted. ! ip nat inside source list NO-NAT
interface FastEthernet4 overload ! !--- Traffic from
internal network to remote clients is denied from !---
being natted. ! ip access-list extended NO-NAT deny ip
10.22.22.0 0.0.0.255 192.168.100.0 0.0.0.255 permit ip
10.22.22.0 0.0.0.255 any ! !--- Passing PPTP traffic
includes allowing GRE - IP protocol 47. ! ip access-list
extended PPTP-PASS-THROUGH permit gre any any ! !---
PPTP terminated traffic involves GRE and TCP port 1723
traffic. ! ip access-list extended PPTP-TERMINATED
permit gre any any permit tcp any any eq 1723 ! !---
Allowing Telnet, SSH and HTTPS access ! ip access-list
extended Router-Access permit tcp any any eq telnet
permit tcp any any eq 22 permit tcp any any eq 443 !
control-plane ! ! line con 0 no modem enable line aux 0
line vty 0 4 login authentication VTY transport input
telnet ssh ! scheduler max-task-time 5000 end

```

## PPTP 客户端配置和设置

完成这些步骤：

1. 选择 **Start > Settings > Network and Dial-up Connections > Make New Connection**。
2. 在显示 Network Connection Wizard 窗口后，选择 **Network Connection Type > Connect to the network at my workplace** 并单击 Next。

## New Connection Wizard

### Network Connection Type

What do you want to do?



- Connect to the Internet**  
Connect to the Internet so you can browse the Web and read email.
- Connect to the network at my workplace**  
Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.
- Set up a home or small office network**  
Connect to an existing home or small office network or set up a new one.
- Set up an advanced connection**  
Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.

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Next >

Cancel

3. 选择 Virtual Private Network connection。

## New Connection Wizard

### Network Connection

How do you want to connect to the network at your workplace?



Create the following connection:

**Dial-up connection**

Connect using a modem and a regular phone line or an Integrated Services Digital Network (ISDN) phone line.

**Virtual Private Network connection**

Connect to the network using a virtual private network (VPN) connection over the Internet.

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Next >

Cancel

4. 指定 Connection Name。

## New Connection Wizard

### Connection Name

Specify a name for this connection to your workplace.



Type a name for this connection in the following box.

Company Name

For example, you could type the name of your workplace or the name of a server you will connect to.

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Next >

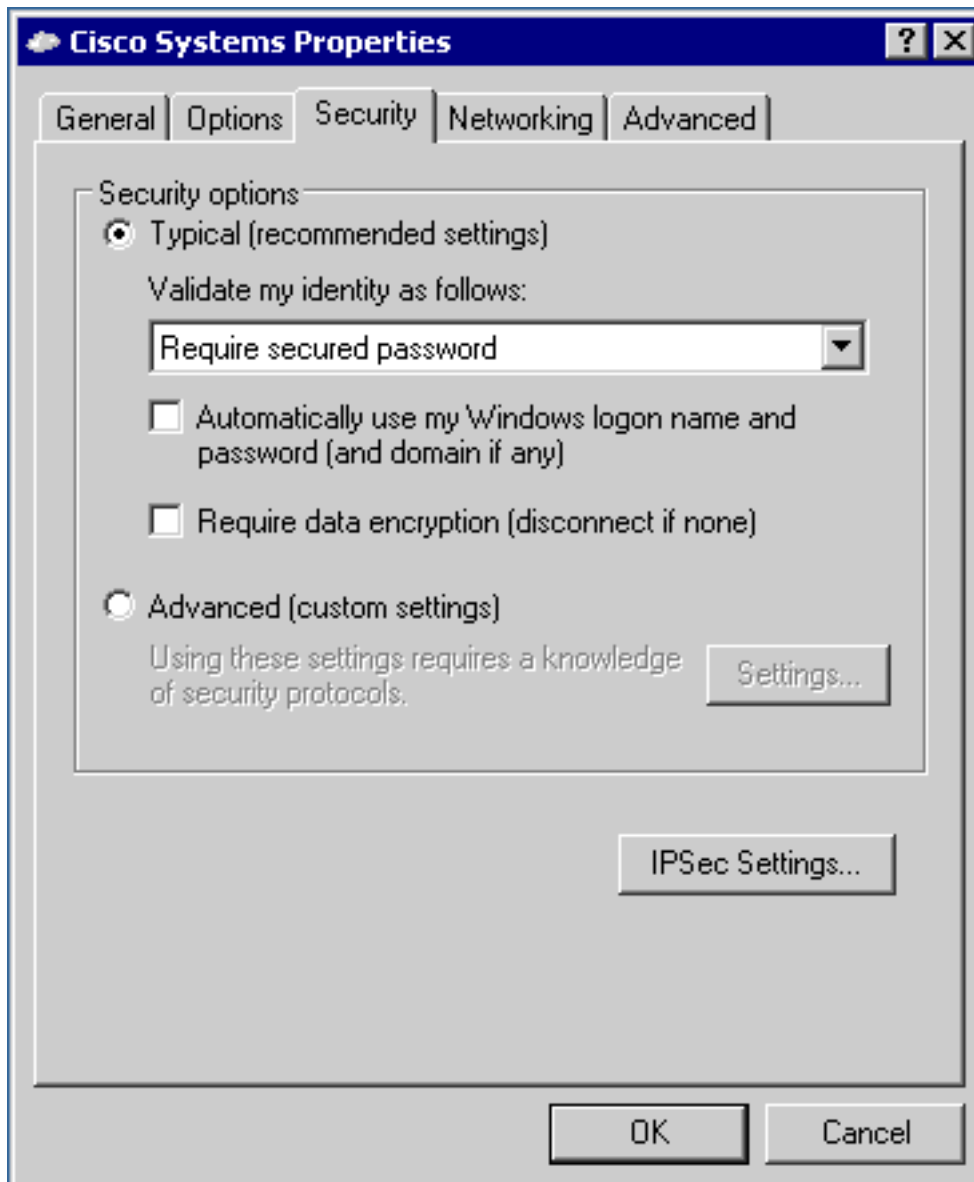
Cancel

5. 在 Host 或 IP 地址栏中指定目标地址并单击 **Next**。

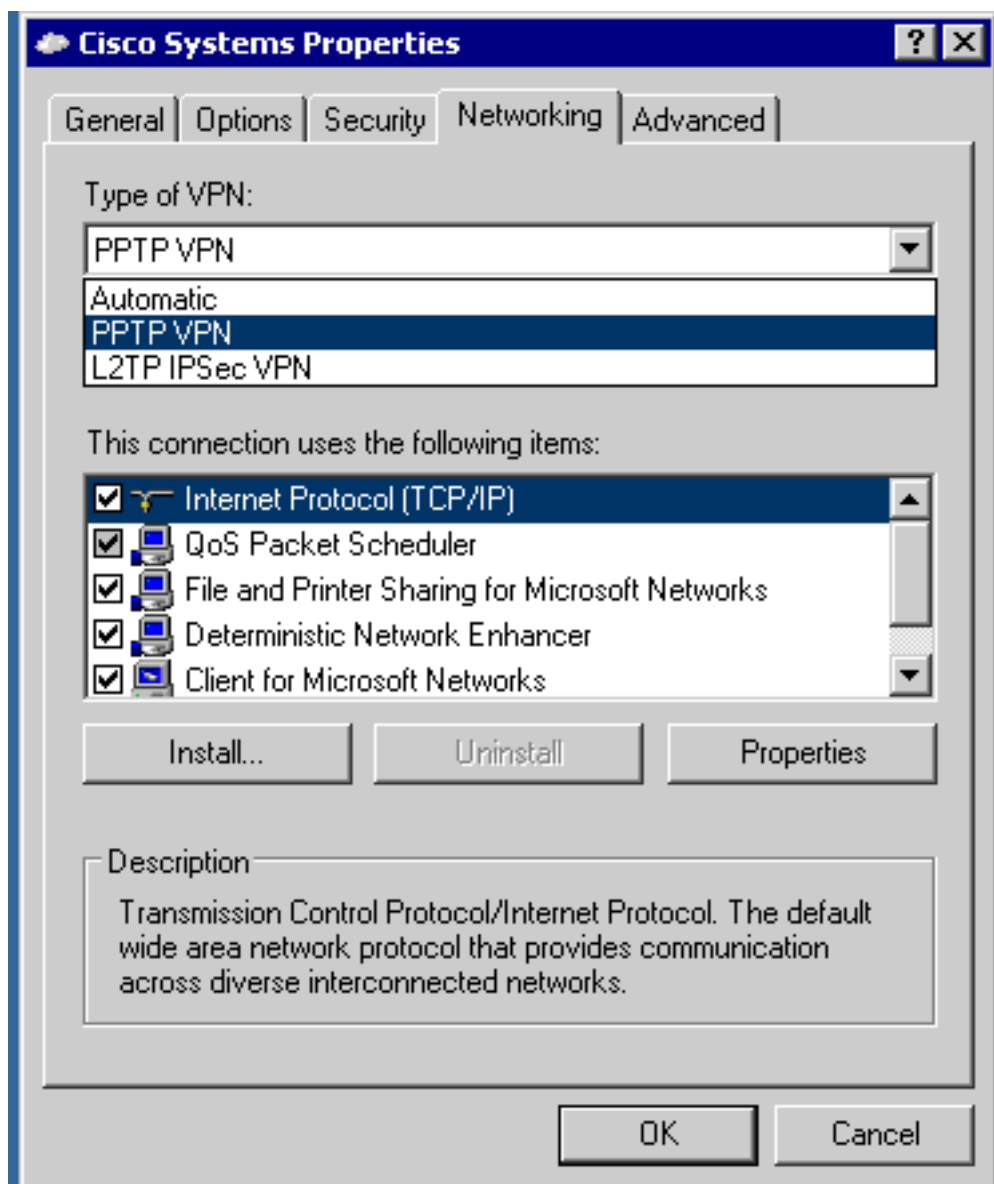


6. 选择 **Start > Settings > Network and Dial up connections** 并选择最近配置的连接。
7. 出现此窗口后，请选择 **Properties > Security**，正确设置选项。
8. 选择 **Advanced (customer settings) > Settings**，并根据需要选择适当的加密 (Data Encryption) 级别和身份验证 (allow these protocols)。





9. 选择 **Networking > Type of VPN > PPTP VPN** 并单击 **OK**。



10. 输入将用于 PPTP 连接的用户名和口令。



11. 将出现 Verifying username and password 窗口。
12. 将出现 Registering your computer on the network 窗口。
13. 如果验证远程 PC，可从配置的池获得 IP 地址。

```
C:\WINDOWS\system32\cmd.exe
C:\>
C:\>
C:\>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : cisco.com
    IP Address . . . . . : 10.66.83.50
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 10.66.83.1

PPP adapter Cisco Systems:

    Connection-specific DNS Suffix  . :
    IP Address . . . . . : 192.168.100.1
    Subnet Mask . . . . . : 255.255.255.255
    Default Gateway . . . . . : 192.168.100.1

C:\>
C:\>
C:\>
C:\>
```

## 验证

使用本部分可确认配置能否正常运行。

[命令输出解释程序 \( 仅限注册用户 \)](#) (OIT) 支持某些 show 命令。使用 OIT 可查看对 show 命令输

出的分析。

### 1. Router#show vpdn

PPTP Tunnel and Session Information Total tunnels 1 sessions 1

LocID	Remote Name	State	Remote Address	Port	Sessions	VPDN Group
3		estabd	10.66.83.50	1040	1	PPTP-VPDN
State	Last Chg	Uniq ID	3 32768	3	Vi2.1	cisco estabd 00:00:57 2

### 2. Router#show ip interface brief

Interface	IP-Address	OK?	Method	Status
Protocol				
FastEthernet0	unassigned	YES	unset	upup
FastEthernet1	unassigned	YES	unset	updown
FastEthernet2	unassigned	YES	unset	updown
FastEthernet3	unassigned	YES	unset	updown
FastEthernet4	10.66.79.73	YES	manual	upup
Dot11Radio0	unassigned	YES	unset	down
SSLVPN-VIF0	unassigned	NO	unset	upup
Vlan1	10.22.22.1	YES	manual	upup
NVIO	unassigned	NO	unset	upup
Virtual-Templat1	10.66.79.73	YES	TFTP	downdown
Virtual-Access1	unassigned	YES	unset	downdown
Virtual-Access2	unassigned	YES	unset	upup
Virtual-Access2.1	10.66.79.73	YES	TFTP	up up

### 3. Router#show ip route

Codes: C - connected, S - static, 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  
i - IS-IS, su - IS-IS summary, 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 10.66.79.65 to network 0.0.0.0

```
C 10.22.22.0/24 is directly connected, Vlan1
  10.0.0.0/27 is subnetted, 1 subnets
C 10.66.79.64 is directly connected, FastEthernet4
  192.168.100.0/32 is subnetted, 1 subnets C 192.168.100.1 is directly connected,
Virtual-Access2.1 S* 0.0.0.0/0 [1/0] via 10.66.79.65
```

### 4. Router#show users

Line	User	Host(s)	Idle	Location
* 0 con 0		idle	00:00:00	

Interface	User	Mode	Idle	Peer Address
Vi2.1	cisco	PPPoVPDN	-	192.168.100.1

### 5. 从连接的客户端 Ping 内部服务器

```

C:\WINDOWS\system32\cmd.exe

C:\Documents and Settings\snallasa\Desktop>ping 10.22.22.10

Pinging 10.22.22.10 with 32 bytes of data:

Reply from 10.22.22.10: bytes=32 time<1ms TTL=128
Reply from 10.22.22.10: bytes=32 time<1ms TTL=128
Reply from 10.22.22.10: bytes=32 time<1ms TTL=128
Reply from 10.22.22.10: bytes=32 time<1ms TTL=128

Ping statistics for 10.22.22.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Documents and Settings\snallasa\Desktop>_

```

6. Router#show policy-map type inspect zone-pair sessions policy exists on zp outside-self  
Zone-pair: outside-self

Service-policy inspect : Out-Self-Policy

Class-map: Router-Access-Traffic (match-all)  
Match: access-group name Router-Access  
Pass  
14 packets, 358 bytes

Class-map: PPTP-Terminated-Traffic (match-all) Match: access-group name PPTP-TERMINATED  
Pass 52 packets, 4466 bytes Class-map: class-default (match-any) Match: any Drop 21  
packets, 1680 bytes policy exists on zp pptp-in Zone-pair: pptp-in Service-policy inspect :  
PPTP-In-Policy Class-map: All-Traffic (match-any) Match: protocol tcp 0 packets, 0 bytes 30  
second rate 0 bps Match: protocol udp 0 packets, 0 bytes 30 second rate 0 bps Match:  
protocol icmp 1 packets, 40 bytes 30 second rate 0 bps Inspect Class-map: class-default  
(match-any) Match: any Drop 0 packets, 0 bytes policy exists on zp inside-outside Zone-  
pair: inside-outside Service-policy inspect : In-Out-Policy **Class-map: PPTP-Pass-Through-  
Traffic (match-all) Match: access-group name PPTP-PASS-THROUGH Pass 4 packets, 320 bytes**  
Class-map: All-Traffic (match-any) Match: protocol tcp 31 packets, 868 bytes 30 second rate  
0 bps Match: protocol udp 20 packets, 1271 bytes 30 second rate 0 bps Match: protocol icmp  
0 packets, 0 bytes 30 second rate 0 bps Inspect **Number of Half-open Sessions = 6 Half-open  
Sessions Session 83B5B920 (10.22.22.10:2135)=>(10.66.79.245:443) https:tcp SIS\_OPENING  
Created 00:00:26, Last heard 00:00:26 Bytes sent (initiator:responder) [0:0] Session  
83B5BB20 (10.66.79.241:138)=>(10.66.79.255:138) netbios-dgm:udp SIS\_OPENING Created  
00:00:26, Last heard 00:00:13 Bytes sent (initiator:responder) [406:0] Session 83B5BD20  
(192.168.212.14:138)=>(192.168.212.255:138) netbios-dgm:udp SIS\_OPENING Created 00:00:23,  
Last heard 00:00:23 Bytes sent (initiator:responder) [233:0] Session 83B5C120  
(10.22.22.10:2138)=>(10.66.79.245:443) https:tcp SIS\_OPENING Created 00:00:19, Last heard  
00:00:19 Bytes sent (initiator:responder) [0:0] Session 83B5C320  
(10.22.22.10:2142)=>(10.66.79.245:443) https:tcp SIS\_OPENING Created 00:00:12, Last heard  
00:00:12 Bytes sent (initiator:responder) [0:0] Session 83B5C520  
(10.22.22.10:2145)=>(10.66.79.245:443) https:tcp SIS\_OPENING Created 00:00:05, Last heard  
00:00:05 Bytes sent (initiator:responder) [0:0] Class-map: class-default (match-any) Match:  
any Drop 0 packets, 0 bytes**

7. Router#show debugging PPP:

PPP authentication debugging is on  
PPP protocol negotiation debugging is on

VPN:

VPDN events debugging is on

```
!--- When the PPTP User is connecting *Mar 13 02:22:40.535: VPDN Received L2TUN socket
message <xCRQ - Session Incoming> *Mar 13 02:22:40.547: VPDN Tnl/Sn 2 2 L2TUN socket
session accept requested *Mar 13 02:22:40.547: VPDN Tnl/Sn 2 2 Setting up dataplane for L2-
L2, no idb *Mar 13 02:22:40.567: VPDN Received L2TUN socket message <xCCN - Session
Connected> *Mar 13 02:22:40.595: VPDN uid:1 VPDN session up *Mar 13 02:22:40.607: ppp1 PPP:
Send Message[Dynamic Bind Response] *Mar 13 02:22:40.607: ppp1 PPP: Using vpn set call
direction *Mar 13 02:22:40.607: ppp1 PPP: Treating connection as a callin *Mar 13
02:22:40.607: ppp1 PPP: Session handle[8000003] Session id[1] *Mar 13 02:22:40.607: ppp1
PPP: Phase is ESTABLISHING, Passive Open *Mar 13 02:22:40.607: ppp1 LCP: State is Listen
*Mar 13 02:22:42.563: ppp1 LCP: I CONFREQ [Listen] id 1 len 21 *Mar 13 02:22:42.563: ppp1
LCP: MRU 1400 (0x01040578) *Mar 13 02:22:42.563: ppp1 LCP: MagicNumber 0x069878CA
(0x0506069878CA) *Mar 13 02:22:42.563: ppp1 LCP: PFC (0x0702) *Mar 13 02:22:42.563: ppp1
LCP: ACFC (0x0802) *Mar 13 02:22:42.563: ppp1 LCP: Callback 6 (0x0D0306) *Mar 13
02:22:42.563: ppp1 PPP: Authorization NOT required *Mar 13 02:22:42.563: ppp1 LCP: O
CONFREQ [Listen] id 1 len 15 *Mar 13 02:22:42.563: ppp1 LCP: AuthProto CHAP (0x0305C22305)
*Mar 13 02:22:42.563: ppp1 LCP: MagicNumber 0x14AF18DB (0x050614AF18DB) *Mar 13
02:22:42.563: ppp1 LCP: O CONFREQ [Listen] id 1 len 7 *Mar 13 02:22:42.563: ppp1 LCP:
Callback 6 (0x0D0306) *Mar 13 02:22:42.567: ppp1 LCP: I CONFACK [REQsent] id 1 len 15 *Mar
13 02:22:42.567: ppp1 LCP: AuthProto CHAP (0x0305C22305) *Mar 13 02:22:42.567: ppp1 LCP:
MagicNumber 0x14AF18DB (0x050614AF18DB) *Mar 13 02:22:42.567: ppp1 LCP: I CONFREQ [ACKrcvd]
id 2 len 18 *Mar 13 02:22:42.567: ppp1 LCP: MRU 1400 (0x01040578) *Mar 13 02:22:42.567:
ppp1 LCP: MagicNumber 0x069878CA (0x0506069878CA) *Mar 13 02:22:42.567: ppp1 LCP: PFC
(0x0702) *Mar 13 02:22:42.567: ppp1 LCP: ACFC (0x0802) *Mar 13 02:22:42.567: ppp1 LCP: O
CONFNAK [ACKrcvd] id 2 len 8 *Mar 13 02:22:42.567: ppp1 LCP: MRU 1500 (0x010405DC) *Mar 13
02:22:42.571: ppp1 LCP: I CONFREQ [ACKrcvd] id 3 len 18 *Mar 13 02:22:42.571: ppp1 LCP: MRU
1400 (0x01040578) *Mar 13 02:22:42.571: ppp1 LCP: MagicNumber 0x069878CA (0x0506069878CA)
*Mar 13 02:22:42.571: ppp1 LCP: PFC (0x0702) *Mar 13 02:22:42.571: ppp1 LCP: ACFC (0x0802)
*Mar 13 02:22:42.571: ppp1 LCP: O CONFNAK [ACKrcvd] id 3 len 8 *Mar 13 02:22:42.571: ppp1
LCP: MRU 1500 (0x010405DC) *Mar 13 02:22:42.571: ppp1 LCP: I CONFREQ [ACKrcvd] id 4 len 18
*Mar 13 02:22:42.571: ppp1 LCP: MRU 1500 (0x010405DC) *Mar 13 02:22:42.571: ppp1 LCP:
MagicNumber 0x069878CA (0x0506069878CA) *Mar 13 02:22:42.571: ppp1 LCP: PFC (0x0702) *Mar
13 02:22:42.571: ppp1 LCP: ACFC (0x0802) *Mar 13 02:22:42.575: ppp1 LCP: O CONFACK
[ACKrcvd] id 4 len 18 *Mar 13 02:22:42.575: ppp1 LCP: MRU 1500 (0x010405DC) *Mar 13
02:22:42.575: ppp1 LCP: MagicNumber 0x069878CA (0x0506069878CA) *Mar 13 02:22:42.575: ppp1
LCP: PFC (0x0702) *Mar 13 02:22:42.575: ppp1 LCP: ACFC (0x0802) *Mar 13 02:22:42.575: ppp1
LCP: State is Open *Mar 13 02:22:42.575: ppp1 PPP: Phase is AUTHENTICATING, by this end
*Mar 13 02:22:42.575: ppp1 CHAP: O CHALLENGE id 1 len 33 from "Router" *Mar 13
02:22:42.575: ppp1 LCP: I IDENTIFY [Open] id 5 len 18 magic 0x069878CA MSRASV5.10 *Mar 13
02:22:42.579: ppp1 LCP: I IDENTIFY [Open] id 6 len 31 magic 0x069878CA MSRAS-0-WINXP-
RIKNIGHT- *Mar 13 02:22:42.579: ppp1 CHAP: I RESPONSE id 1 len 26 from "cisco" *Mar 13
02:22:42.579: ppp1 PPP: Phase is FORWARDING, Attempting Forward *Mar 13 02:22:42.579: ppp1
PPP: Phase is AUTHENTICATING, Unauthenticated User *Mar 13 02:22:42.579: ppp1 PPP: Sent
CHAP LOGIN Request *Mar 13 02:22:42.583: ppp1 PPP: Received LOGIN Response PASS *Mar 13
02:22:42.583: ppp1 PPP: Phase is FORWARDING, Attempting Forward *Mar 13 02:22:42.583: ppp1
PPP: Send Message[Connect Local] L2X_ADJ: Vi2.1:midchain adj reqd for ip 0.0.0.0, cid 0
L2X_ADJ: Vi2.1:midchain adj reqd for ip 0.0.0.0, cid 0 *Mar 13 02:22:42.619: VPDN Vi2.1
Virtual interface created for unknown, bandwidth 100000 Kbps *Mar 13 02:22:42.619: VPDN
Vi2.1 Setting up dataplane for L2-L3, Vi2.1 *Mar 13 02:22:42.623: %LINK-3-UPDOWN: Interface
Virtual-Access2, changed state to up L2X_ADJ: Vi2.1:allocated ctx, size 1 *Mar 13
02:22:42.627: VPDN Received L2TUN socket message <Dataplane UP> *Mar 13 02:22:42.627: ppp1
PPP: Bind to [Virtual-Access2.1] *Mar 13 02:22:42.631: Vi2.1 PPP: Send Message[Static Bind
Response] *Mar 13 02:22:42.631: Vi2.1 PPP: Phase is AUTHENTICATING, Authenticated User *Mar
13 02:22:42.631: Vi2.1 CHAP: O SUCCESS id 1 len 4 *Mar 13 02:22:42.635: Vi2.1 PPP: Phase is
UP *Mar 13 02:22:42.639: Vi2.1 IPCP: O CONFREQ [Closed] id 1 len 10 *Mar 13 02:22:42.639:
Vi2.1 IPCP: Address 10.66.79.73 (0x03060A424F49) *Mar 13 02:22:42.639: Vi2.1 PPP: Process
pending ncp packets *Mar 13 02:22:42.643: Vi2.1 CCP: I CONFREQ [Not negotiated] id 7 len 10
*Mar 13 02:22:42.643: Vi2.1 CCP: MS-PPC supported bits 0x01000001 (0x120601000001) *Mar 13
02:22:42.643: Vi2.1 LCP: O PROTREQ [Open] id 2 len 16 protocol CCP
(0x80FD0107000A120601000001) *Mar 13 02:22:42.643: Vi2.1 IPCP: I CONFREQ [REQsent] id 8 len
34 *Mar 13 02:22:42.643: Vi2.1 IPCP: Address 0.0.0.0 (0x030600000000) *Mar 13 02:22:42.643:
Vi2.1 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000) *Mar 13 02:22:42.643: Vi2.1 IPCP:
```

```
PrimaryWINS 0.0.0.0 (0x820600000000) *Mar 13 02:22:42.643: Vi2.1 IPCP: SecondaryDNS 0.0.0.0
(0x830600000000) *Mar 13 02:22:42.643: Vi2.1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar 13 02:22:42.643: Vi2.1 IPCP: Pool returned 192.168.100.1 *Mar 13 02:22:42.643: Vi2.1
IPCP: O CONFREQ [REQsent] id 8 len 28 *Mar 13 02:22:42.647: Vi2.1 IPCP: PrimaryDNS 0.0.0.0
(0x810600000000) *Mar 13 02:22:42.647: Vi2.1 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar 13 02:22:42.647: Vi2.1 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000) *Mar 13
02:22:42.647: Vi2.1 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000) *Mar 13 02:22:42.647:
Vi2.1 IPCP: I CONFACK [REQsent] id 1 len 10 *Mar 13 02:22:42.647: Vi2.1 IPCP: Address
10.66.79.73 (0x03060A424F49) *Mar 13 02:22:42.647: Vi2.1 IPCP: I CONFREQ [ACKrcvd] id 9 len
10 *Mar 13 02:22:42.651: Vi2.1 IPCP: Address 0.0.0.0 (0x030600000000) *Mar 13 02:22:42.651:
Vi2.1 IPCP: O CONFNAK [ACKrcvd] id 9 len 10 *Mar 13 02:22:42.651: Vi2.1 IPCP: Address
192.168.100.1 (0x0306C0A86401) *Mar 13 02:22:42.651: Vi2.1 IPCP: I CONFREQ [ACKrcvd] id 10
len 10 *Mar 13 02:22:42.651: Vi2.1 IPCP: Address 192.168.100.1 (0x0306C0A86401) *Mar 13
02:22:42.651: Vi2.1 IPCP: O CONFACK [ACKrcvd] id 10 len 10 *Mar 13 02:22:42.651: Vi2.1
IPCP: Address 192.168.100.1 (0x0306C0A86401) *Mar 13 02:22:42.651: Vi2.1 IPCP: State is
Open L2X_ADJ: Vi2.1:adj notify change, event 2 L2X_ADJ: Vi2.1:midchain stacking IP 0.0.0.0
to 10.66.83.50 (VRF 0) L2X_ADJ: Vi2.1:adj notify change, event 8 L2X_ADJ: Vi2.1:adj notify
change, event 3 *Mar 13 02:22:42.655: Vi2.1 IPCP: Install route to 192.168.100.1 *Mar 13
02:22:43.623: %LINEPROTO-5-UPDOWN: Line protocol on Interface Virtual-Access2, changed
state to up !--- When the PPTP User is disconnecting *Mar 13 02:23:05.571: Vi2.1 LCP: I
TERMREQ [Open] id 11 len 16 (0x069878CA003CCD7400000000) *Mar 13 02:23:05.571: Vi2.1 LCP: O
TERMACK [Open] id 11 len 4 *Mar 13 02:23:05.575: Vi2.1 PPP: Sending Acct Event[Down] id[4]
*Mar 13 02:23:05.575: Vi2.1 PPP: Phase is TERMINATING *Mar 13 02:23:05.779: VPDN Received
L2TUN socket message <CDN - Session Disconnected> *Mar 13 02:23:05.779: VPDN Vi2.1
disconnect (AAA) IETF: 1/user-request Ascend: 28/PPP Receive Term *Mar 13 02:23:05.779:
VPDN Vi2.1 vpdn shutdown session, result=2, error=6, vendor_err=0, syslog_error_code=2,
syslog_key_type=1 *Mar 13 02:23:05.779: VPDN Vi2.1 VPDN/AAA: accounting stop sent *Mar 13
02:23:05.783: VPDN Vi2.1 Unbinding session from idb *Mar 13 02:23:05.783: Vi2.1 VPDN:
Resetting interface *Mar 13 02:23:05.783: Vi2.1 PPP: Block vaccess from being freed [0x19]
*Mar 13 02:23:05.783: Vi2.1 PPP: Received Disconnect from Lower Layer L2X_ADJ:
Vi2.1:midchain unstacking IP 0.0.0.0 L2X_ADJ: Vi2.1:adj notify change, event 8 L2X_ADJ:
Vi2.1:removed ctx *Mar 13 02:23:05.807: Vi2.1 LCP: State is Closed *Mar 13 02:23:05.807:
Vi2.1 PPP: Phase is DOWN *Mar 13 02:23:05.807: Vi2.1 IPCP: State is Closed *Mar 13
02:23:05.807: Vi2.1 PPP: Unlocked by [0x1] Still Locked by [0x18] *Mar 13 02:23:05.807:
Vi2.1 PPP: Unlocked by [0x10] Still Locked by [0x8] *Mar 13 02:23:05.811: Vi2.1 PPP:
Unlocked by [0x8] Still Locked by [0x0] *Mar 13 02:23:05.811: Vi2.1 PPP: Free previously
blocked vaccess
```

## 故障排除

本部分提供的信息可用于对配置进行故障排除。

1. 请确保发往路由器的数据流允许 TCP 端口 1723 的数据流和 GRE 数据流。
2. 请确保 PPTP 穿透数据流允许 GRE 通过路由器。
3. 请注意缺陷 CSCsr41631；通过对外部接口和虚拟模板接口使用不同的区域可以克服此缺陷。

## 相关信息

- [Cisco IOS 防火墙](#)
- [技术支持和文档 - Cisco Systems](#)