

# Configuring the Cisco Router and VPN Clients Using PPTP and MPPE

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## Introduction

This document describes how to configure a Cisco IOS<sup>®</sup> router that terminates Windows 2000 Point-to-Point Tunneling Protocol (PPTP) Clients, and Microsoft Point-to-Point Encryption Protocol (MPPE).

Refer to Configuring Cisco Secure ACS for Windows Router PPTP Authentication for more information on PPTP authentication with Cisco Secure Access Control Server (ACS).

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

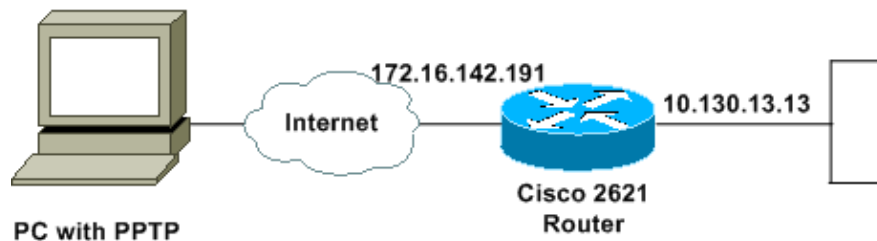
The information in this document is based on the software and hardware versions:

- Cisco 2621 Router that runs Cisco IOS Software Release 12.2
- Microsoft Windows 2000

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

### Network Diagram

This document uses this network setup:



## Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## PPTP Router Configuration

These IOS commands are applicable to all platforms that support PPTP.

```

2621#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.

!--- Enable virtual private dial-up networking.

2621(config)#vpdn enable

!--- Enters VPDN group configuration mode for the specified VPDN group.

2621(config)#vpdn-group 1

!--- Enters VPDN accept-dialin configuration mode
!--- and enables the router to accept dial-in requests.

2621(config-vpdn)#accept-dialin

!--- Specifies which PPTP protocol is used.

2621(config-vpdn-acc-in)#protocol pptp

!--- Specifies the virtual template that is used
!--- in order to clone the virtual access interface.

2621(config-vpdn-acc-in)#virtual-template 1
2621(config-vpdn-acc-in)#exit

2621(config)#ip local pool test 192.168.1.1 192.168.1.250

!--- Create virtual-template interface used for cloning
!--- virtual-access interfaces with the use of address pool test
!--- with Challenge Authentication Protocol (CHAP) authentication, PAP, and MS-CHAP.

2621(config)#interface virtual-template 1

2621(config-if)#encapsulation ppp
2621(config-if)#peer default ip address pool test
2621(config-if)#ip unnumbered FastEthernet0/0
2621(config-if)#no keepalive
2621(config-if)#ppp encrypt mpe auto
2621(config-if)#ppp authentication pap chap ms-chap

```



```
controller T1 0/1
 framing sf
 linecode ami
!
!
!
interface Loopback0
 ip address 10.100.100.1 255.255.255.0
 ip nat inside
!
interface FastEthernet0/0
 ip address 172.16.142.191 255.255.255.0
 no ip route-cache
 no ip mroute-cache
 duplex auto
 speed auto
!
interface FastEthernet0/1
 ip address 10.130.13.13 255.255.0.0
 duplex auto
 speed auto
!
!--- Create virtual-template interface used for cloning
!--- virtual-access interfaces with the use of address pool test
!--- with CHAP authentication, PAP, and MS-CHAP.

interface Virtual-Template1
 ip unnumbered FastEthernet0/0
 peer default ip address pool test
 no keepalive
 ppp encrypt mppe auto
 ppp authentication pap chap ms-chap
!

!--- Create IP pool named test and specify IP range.

ip local pool test 192.168.1.1 192.168.1.250
no ip http server
no ip http secure-server
ip classless
ip route 0.0.0.0 0.0.0.0 172.16.142.1
!
ip pim bidir-enable
!
!
!
call rsvp-sync
!
!
mgcp profile default
!
dial-peer cor custom
!
!
!
!
!
line con 0
 exec-timeout 0 0
line aux 0
line vty 0 4
 password cisco
 login
!
!
```

```
end
2621#
```

## Router Configuration with MPPE and MS-CHAP

```
!--- Enter configuration commands, one per line.
!--- End with CNTL/Z.

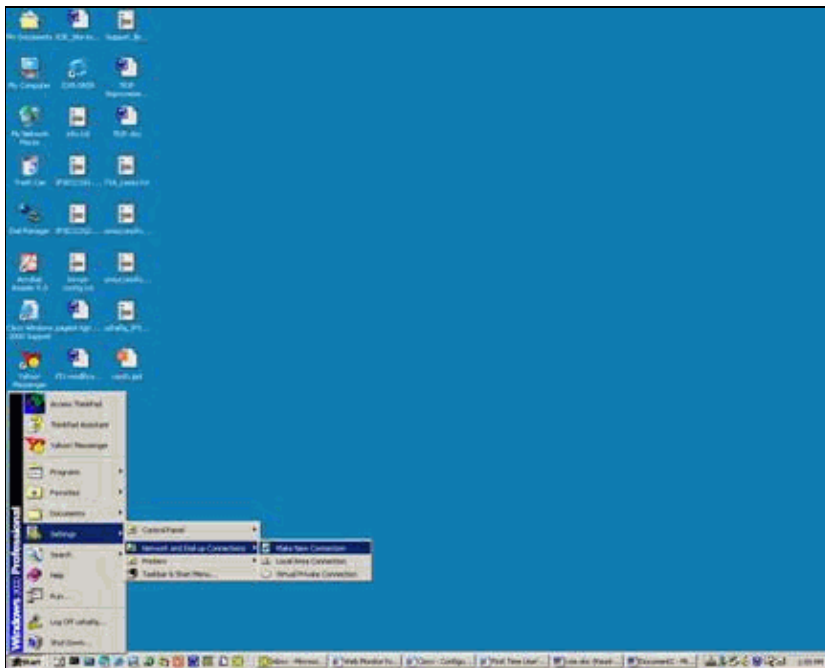
2621(config)#interface Virtual-Template1
2621(config-if)#ppp authentication ms-chap
2621(config-if)#ppp encrypt mppe ?
    128    128 Bit Encryption only
    40     40 Bit Encryption only
    auto   Will offer 40 and 128 bit if available

2621(config-if)#ppp encrypt mppe auto
2621(config-if)#ppp encrypt mppe auto required
```

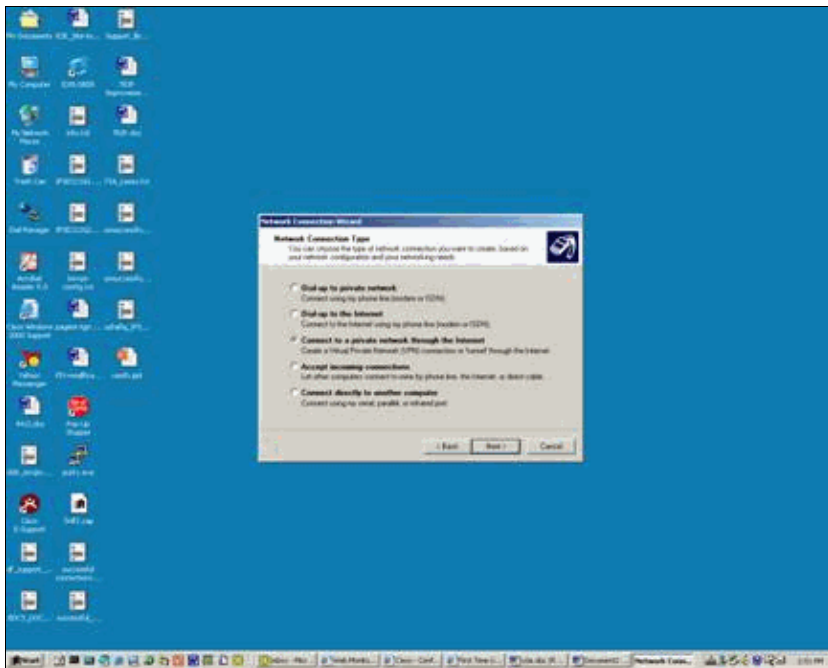
## Windows 2000 VPN (PPTP) Settings and Configuration

Complete these steps:

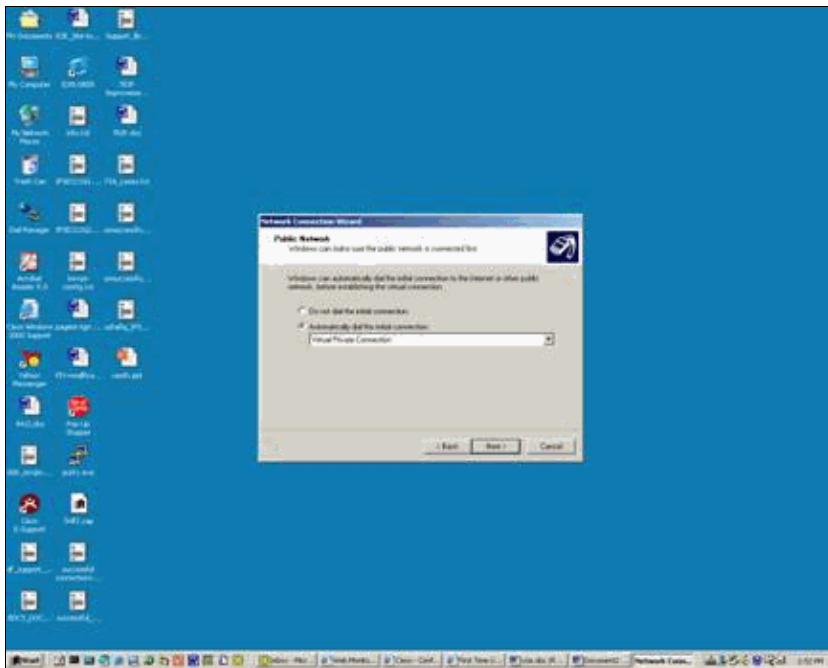
1. Choose **Start > Settings > Network and Dial-up Connections > Make New Connection**.



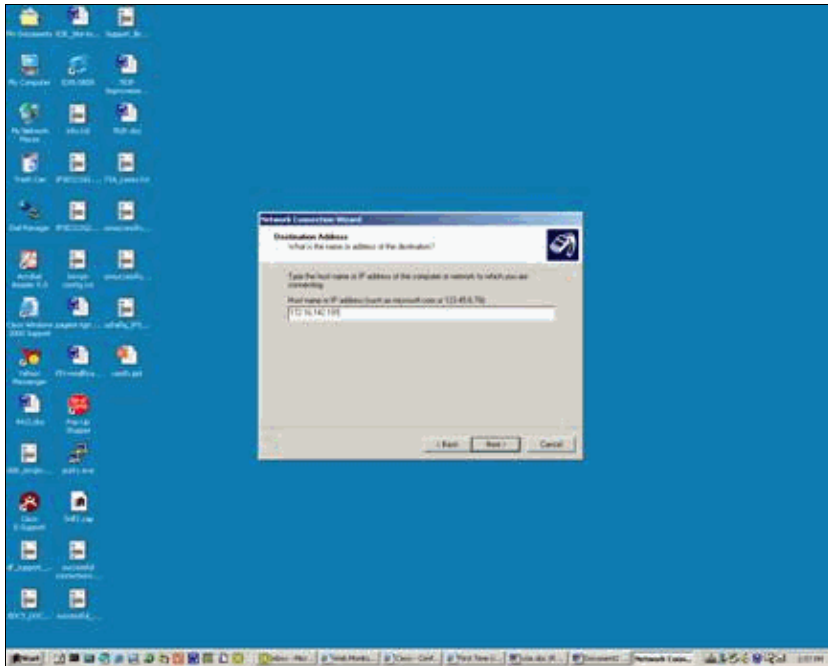
2. After the Network Connection Wizard window appears, choose **Network Connection Type** and **Connect to a private network through the Internet**.



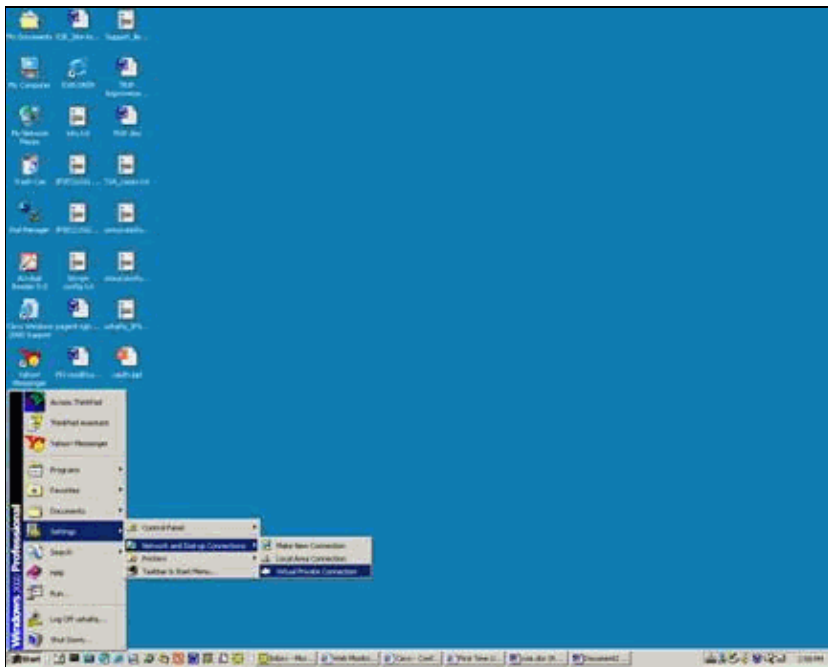
3. Choose **Automatically dial this initial connection**.



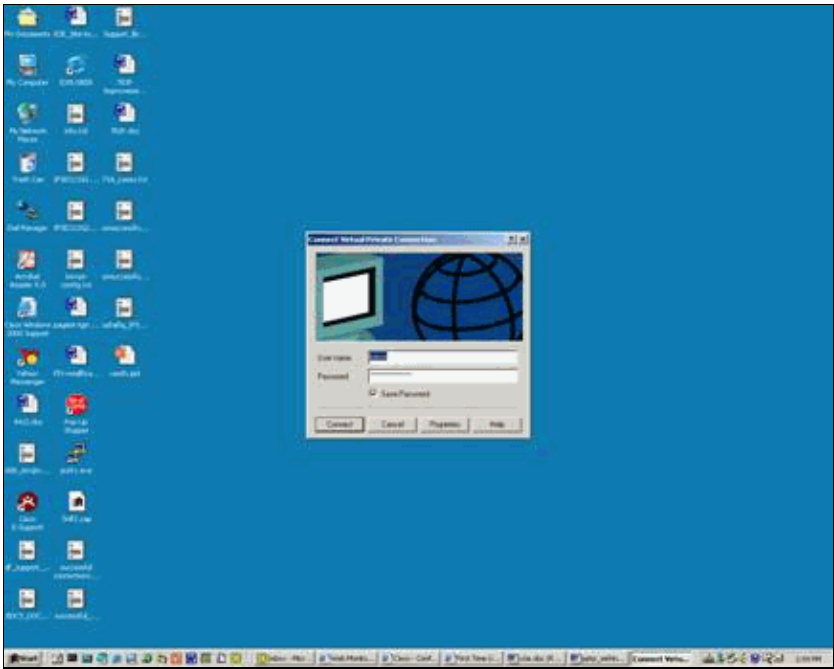
4. Specify a Destination Address in the Host or IP address field and click **Next**.



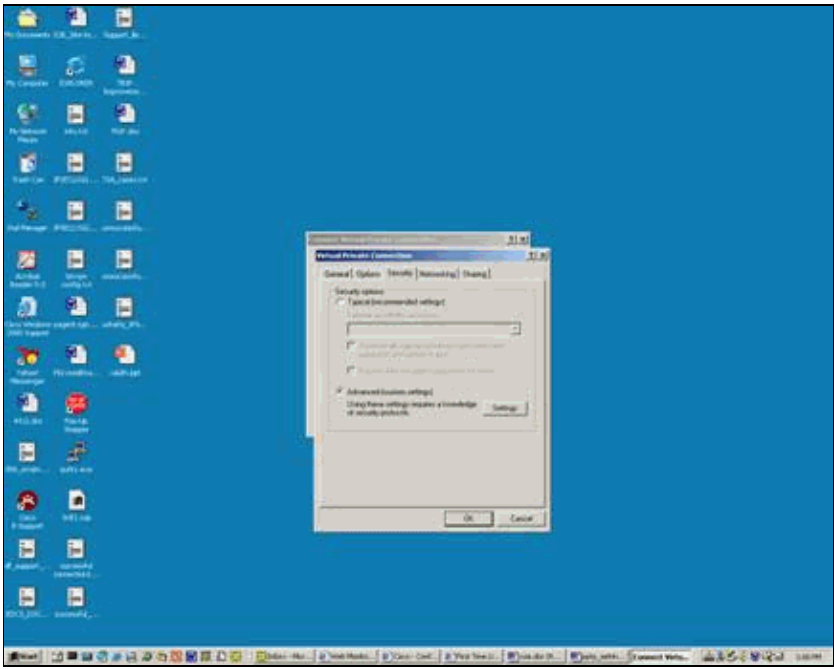
5. Choose **Start > Settings > Network and Dial up connections** and select the recently configured connection.



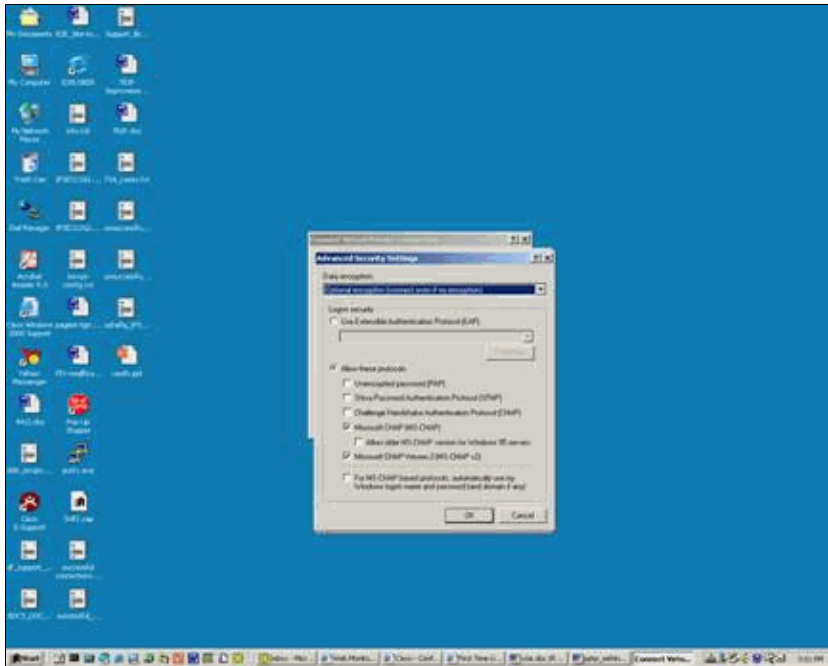
6. After this window appears, choose **Properties > Security** in order to set the option properly.



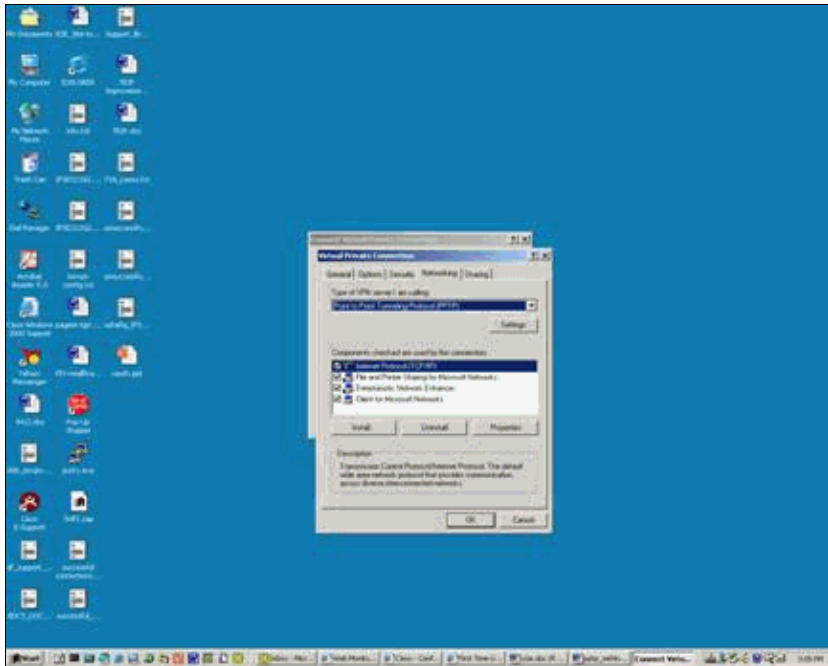
7. Choose **Advanced (customer settings)**, choose **Settings**, and select the appropriate encryption (Data Encryption) level and authentication (allow these protocols).



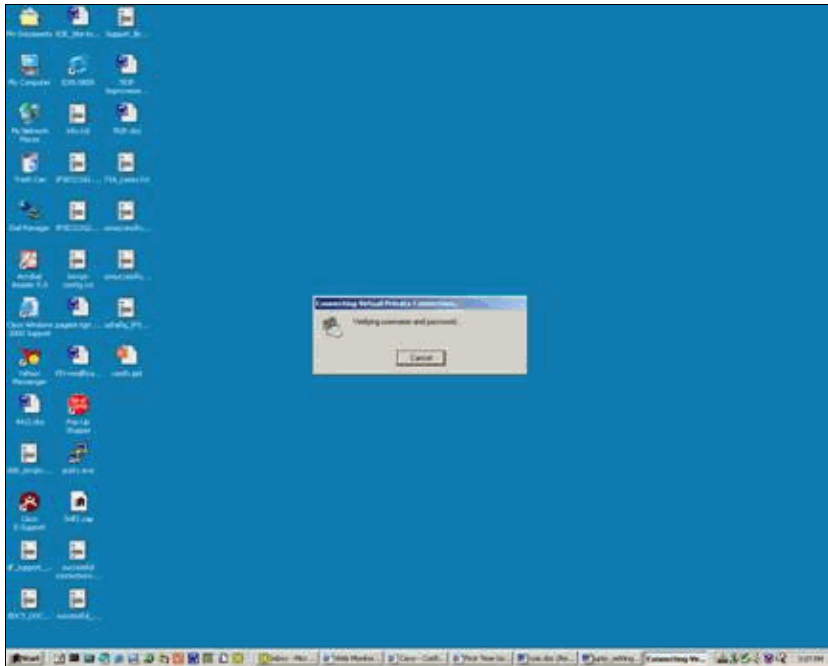




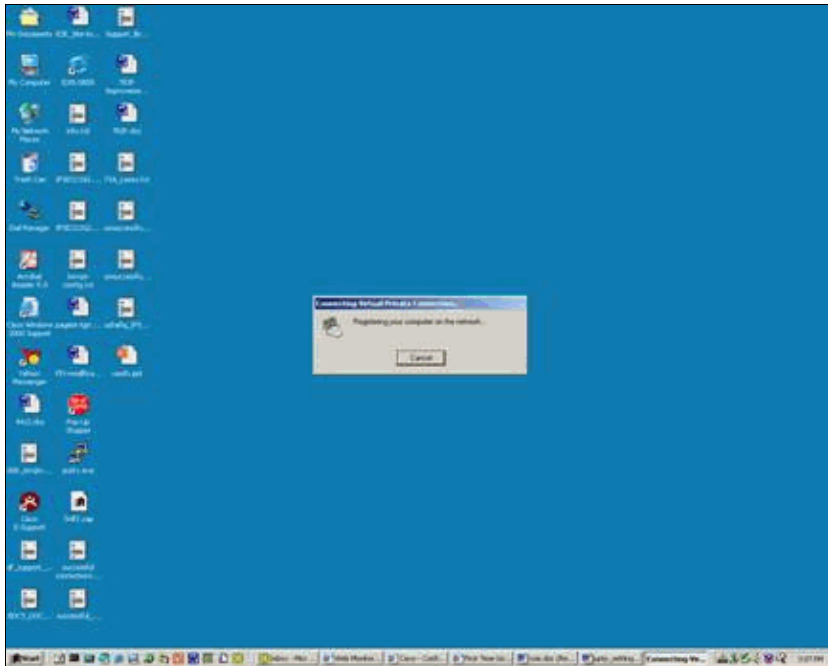
8. Under Networking (type of VPN server that is called) choose **PPTP** and click **OK**.



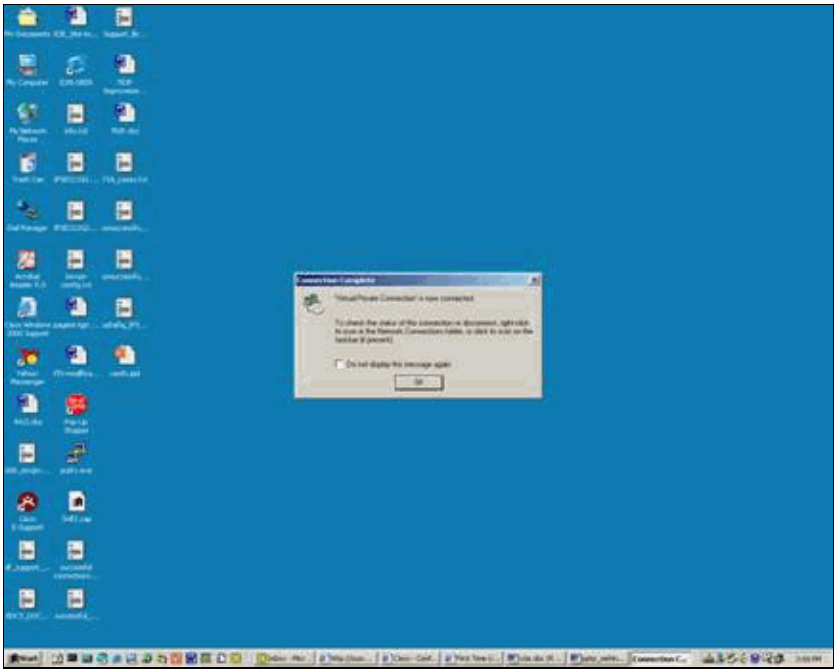
9. The Verifying username and password window appears.



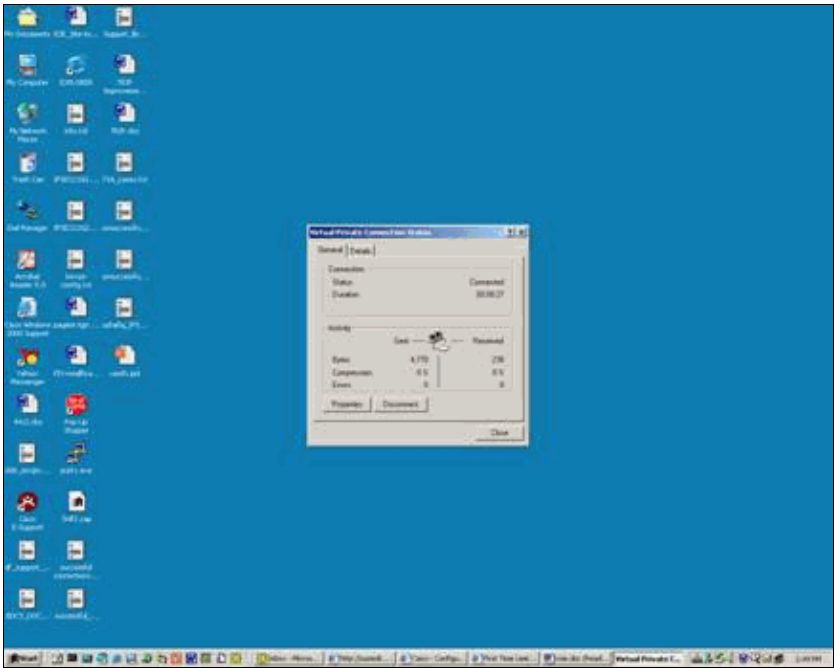
10. The Registering your computer on the network window appears.

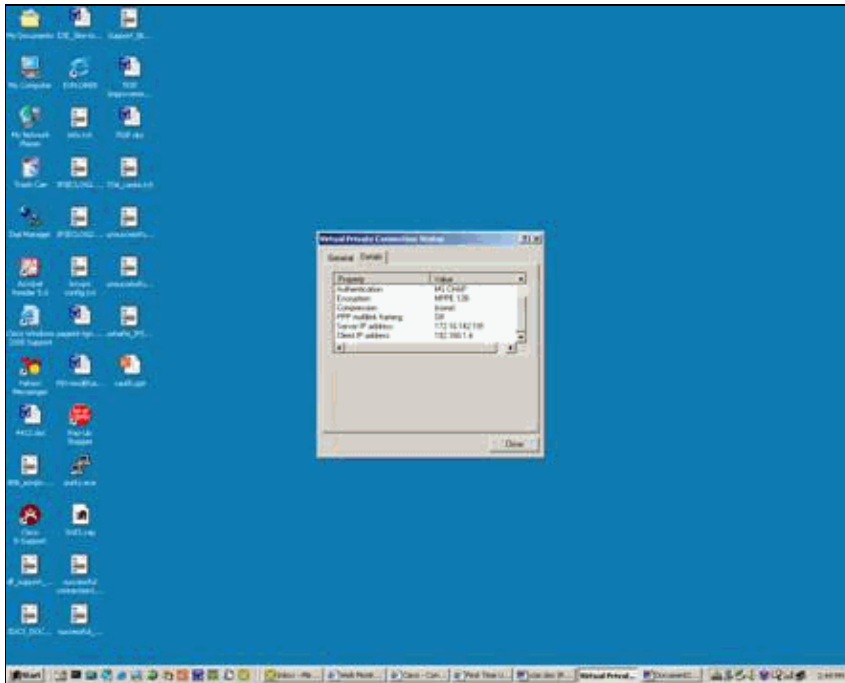


11. The Connections Properties window appears.



12. These windows display the Connection Status.





## Verify

This section provides information you can use in order to confirm that your configuration works properly.

The Output Interpreter Tool (registered customers only) (OIT) supports certain **show** commands. Use the OIT to view an analysis of **show** command output.

- **show debug** Displays **debug** commands currently enabled in order to troubleshoot
- **show user** Displays users currently logged on and their status
- **show ip route connected** Displays the current state of the routing table
- **show vpdn** Displays information about active Layer 2 Tunnel Protocol (L2TP) or Layer 2 Forwarding (L2F) Protocol tunnel and message identifiers in a virtual private dialup network (VPDN)

This is sample output of the **show debug** command.

```
2621#show debug
PPP:
  PPP authentication debugging is on
  PPP protocol negotiation debugging is on

VPN:
  VPDN events debugging is on
```

This is debug output with the initial PPTP configured.

```
2621#
*Mar  5 02:16:25.675: ppp2 PPP: Using vpn set call direction
*Mar  5 02:16:25.675: ppp2 PPP: Treating connection as a callin
*Mar  5 02:16:25.675: ppp2 PPP: Phase is ESTABLISHING, Passive Open
*Mar  5 02:16:25.675: ppp2 LCP: State is Listen
*Mar  5 02:16:27.663: ppp2 LCP: TIMEOUT: State Listen
*Mar  5 02:16:27.663: ppp2 PPP: Authorization required
*Mar  5 02:16:27.663: ppp2 LCP: O CONFREQ [Listen] id 1 len 14
*Mar  5 02:16:27.663: ppp2 LCP:   AuthProto PAP (0x0304C023)
*Mar  5 02:16:27.663: ppp2 LCP:   MagicNumber 0x1658CF62 (0x05061658CF62)
*Mar  5 02:16:27.667: ppp2 LCP: I CONFACK [REQsent] id 1 len 14
```

```

*Mar 5 02:16:27.667: ppp2 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:16:27.667: ppp2 LCP: MagicNumber 0x1658CF62 (0x05061658CF62)
*Mar 5 02:16:27.695: ppp2 LCP: I CONFREQ [ACKrcvd] id 1 len 44
*Mar 5 02:16:27.695: ppp2 LCP: MagicNumber 0x131A2427 (0x0506131A2427)
*Mar 5 02:16:27.695: ppp2 LCP: PFC (0x0702)
*Mar 5 02:16:27.695: ppp2 LCP: ACFC (0x0802)
*Mar 5 02:16:27.695: ppp2 LCP: Callback 6 (0x0D0306)
*Mar 5 02:16:27.695: ppp2 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:16:27.695: ppp2 LCP: EndpointDisc 1 Local
*Mar 5 02:16:27.699: ppp2 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:16:27.699: ppp2 LCP: (0x897EAE00000002)
*Mar 5 02:16:27.699: ppp2 LCP: O CONFREQ [ACKrcvd] id 1 len 11
*Mar 5 02:16:27.699: ppp2 LCP: Callback 6 (0x0D0306)
*Mar 5 02:16:27.699: ppp2 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:16:27.703: ppp2 LCP: I CONFREQ [ACKrcvd] id 2 len 37
*Mar 5 02:16:27.703: ppp2 LCP: MagicNumber 0x131A2427 (0x0506131A2427)
*Mar 5 02:16:27.703: ppp2 LCP: PFC (0x0702)
*Mar 5 02:16:27.703: ppp2 LCP: ACFC (0x0802)
*Mar 5 02:16:27.707: ppp2 LCP: EndpointDisc 1 Local
*Mar 5 02:16:27.707: ppp2 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:16:27.707: ppp2 LCP: (0x897EAE00000002)
*Mar 5 02:16:27.707: ppp2 LCP: O CONFACK [ACKrcvd] id 2 len 37
*Mar 5 02:16:27.707: ppp2 LCP: MagicNumber 0x131A2427 (0x0506131A2427)
*Mar 5 02:16:27.707: ppp2 LCP: PFC (0x0702)
*Mar 5 02:16:27.707: ppp2 LCP: ACFC (0x0802)
*Mar 5 02:16:27.711: ppp2 LCP: EndpointDisc 1 Local
*Mar 5 02:16:27.711: ppp2 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:16:27.711: ppp2 LCP: (0x897EAE00000002)
*Mar 5 02:16:27.711: ppp2 LCP: State is Open
*Mar 5 02:16:27.711: ppp2 PPP: Phase is AUTHENTICATING, by this end
*Mar 5 02:16:27.715: ppp2 LCP: I IDENTIFY [Open] id 3 len 18 magic
0x131A2427 MSRASV5.00
*Mar 5 02:16:27.719: ppp2 LCP: I IDENTIFY [Open] id 4 len 28 magic
0x131A2427 MSRAS-1-USHAFIQ-W2K1
*Mar 5 02:16:27.719: ppp2 PAP: I AUTH-REQ id 1 len 19 from "cisco"
*Mar 5 02:16:27.719: ppp2 PAP: Authenticating peer cisco
*Mar 5 02:16:27.719: ppp2 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:16:27.719: ppp2 PPP: Phase is AUTHENTICATING, Unauthenticated User
*Mar 5 02:16:27.719: ppp2 PPP: Sent PAP LOGIN Request
*Mar 5 02:16:27.723: ppp2 PPP: Received LOGIN Response PASS
*Mar 5 02:16:27.723: ppp2 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:16:27.727: Vi4 PPP: Phase is DOWN, Setup
*Mar 5 02:16:27.727: Tnl/Sn3/3 PPTP: Virtual interface created for
bandwidth 10000 Kbps
*Mar 5 02:16:27.731: Vi4 Tnl/Sn3/3 PPTP: VPDN session up
*Mar 5 02:16:27.735: %LINK-3-UPDOWN: Interface Virtual-Access4, changed state to up
*Mar 5 02:16:27.735: Vi4 PPP: Phase is AUTHENTICATING, Authenticated User
*Mar 5 02:16:27.735: Vi4 PAP: O AUTH-ACK id 1 len 5
*Mar 5 02:16:27.739: Vi4 PPP: Phase is UP
*Mar 5 02:16:27.739: Vi4 IPCP: O CONFREQ [Closed] id 1 len 10
*Mar 5 02:16:27.739: Vi4 IPCP: Address 172.16.142.191 (0x0306AC108EBF)
*Mar 5 02:16:27.739: Vi4 CCP: O CONFREQ [Closed] id 1 len 4
*Mar 5 02:16:27.739: Vi4 PPP: Process pending packets
*Mar 5 02:16:27.747: Vi4 CCP: I CONFREQ [REQsent] id 5 len 10
*Mar 5 02:16:27.747: Vi4 CCP: MS-PPC supported bits 0x01000001 (0x120601000001)
*Mar 5 02:16:27.747: Vi4 CCP: O CONFNAK [REQsent] id 5 len 10
*Mar 5 02:16:27.751: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:16:27.751: Vi4 CCP: I CONFACK [REQsent] id 1 len 4
*Mar 5 02:16:27.751: Vi4 IPCP: I CONFREQ [REQsent] id 6 len 34
*Mar 5 02:16:27.751: Vi4 IPCP: Address 0.0.0.0 (0x030600000000)
*Mar 5 02:16:27.751: Vi4 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar 5 02:16:27.751: Vi4 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar 5 02:16:27.755: Vi4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar 5 02:16:27.755: Vi4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar 5 02:16:27.755: Vi4 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 5 02:16:27.755: Vi4 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0

```

```

*Mar 5 02:16:27.755: Vi4 IPCP: Pool returned 192.168.1.4
*Mar 5 02:16:27.755: Vi4 IPCP: O CONFREQ [REQsent] id 6 len 28
*Mar 5 02:16:27.759: Vi4 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar 5 02:16:27.759: Vi4 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar 5 02:16:27.759: Vi4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar 5 02:16:27.759: Vi4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar 5 02:16:27.759: Vi4 IPCP: I CONFACK [REQsent] id 1 len 10
*Mar 5 02:16:27.759: Vi4 IPCP: Address 172.16.142.191 (0x0306AC108EBF)
*Mar 5 02:16:27.763: Vi4 CCP: I CONFREQ [ACKrcvd] id 7 len 4
*Mar 5 02:16:27.767: Vi4 CCP: O CONFACK [ACKrcvd] id 7 len 4
*Mar 5 02:16:27.767: Vi4 CCP: State is Open
*Mar 5 02:16:27.767: Vi4 CCP: Compression not negotiated
*Mar 5 02:16:27.767: Vi4 CCP: Decompression not negotiated
*Mar 5 02:16:27.767: Vi4 CCP: Negotiation mismatch, closing CCP
*Mar 5 02:16:27.767: Vi4 CCP: O TERMREQ [Open] id 2 len 4
*Mar 5 02:16:27.767: Vi4 IPCP: I CONFREQ [ACKrcvd] id 8 len 10
*Mar 5 02:16:27.767: Vi4 IPCP: Address 0.0.0.0 (0x030600000000)
*Mar 5 02:16:27.771: Vi4 IPCP: O CONFNAK [ACKrcvd] id 8 len 10
*Mar 5 02:16:27.771: Vi4 IPCP: Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:16:27.775: Vi4 CCP: I TERMACK [TERMsent] id 2 len 4
*Mar 5 02:16:27.775: Vi4 CCP: State is Closed
*Mar 5 02:16:27.775: Vi4 IPCP: I CONFREQ [ACKrcvd] id 9 len 10
*Mar 5 02:16:27.775: Vi4 IPCP: Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:16:27.775: Vi4 IPCP: O CONFACK [ACKrcvd] id 9 len 10
*Mar 5 02:16:27.779: Vi4 IPCP: Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:16:27.779: Vi4 IPCP: State is Open
*Mar 5 02:16:27.783: Vi4 IPCP: Install route to 192.168.1.4
*Mar 5 02:16:27.783: Vi4 IPCP: Add link info for cef entry 192.168.1.4
*Mar 5 02:16:28.735: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Virtual-Access4, changed state to up
*Mar 5 02:16:37.743: Vi4 CCP: O CONFREQ [Closed] id 3 len 4
2621#
2621#

```

This is debug output with the required MPPE and MS-CHAP configuration.

```

2621#
*Mar 5 02:25:01.815: ppp4 PPP: Using vpn set call direction
*Mar 5 02:25:01.815: ppp4 PPP: Treating connection as a callin
*Mar 5 02:25:01.815: ppp4 PPP: Phase is ESTABLISHING, Passive Open
*Mar 5 02:25:01.815: ppp4 LCP: State is Listen
*Mar 5 02:25:03.823: ppp4 LCP: TIMEout: State Listen
*Mar 5 02:25:03.823: ppp4 PPP: Authorization required
*Mar 5 02:25:03.823: ppp4 LCP: O CONFREQ [Listen] id 1 len 15
*Mar 5 02:25:03.823: ppp4 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:25:03.823: ppp4 LCP: MagicNumber 0x1660AFA4 (0x05061660AFA4)
*Mar 5 02:25:03.843: ppp4 LCP: I CONFACK [REQsent] id 1 len 15
*Mar 5 02:25:03.843: ppp4 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:25:03.843: ppp4 LCP: MagicNumber 0x1660AFA4 (0x05061660AFA4)
*Mar 5 02:25:03.843: ppp4 LCP: I CONFREQ [ACKrcvd] id 1 len 44
*Mar 5 02:25:03.843: ppp4 LCP: MagicNumber 0x4B5A2A81 (0x05064B5A2A81)
*Mar 5 02:25:03.843: ppp4 LCP: PFC (0x0702)
*Mar 5 02:25:03.847: ppp4 LCP: ACFC (0x0802)
*Mar 5 02:25:03.847: ppp4 LCP: Callback 6 (0x0D0306)
*Mar 5 02:25:03.847: ppp4 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:25:03.847: ppp4 LCP: EndpointDisc 1 Local
*Mar 5 02:25:03.847: ppp4 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:25:03.847: ppp4 LCP: (0x897EAE00000004)
*Mar 5 02:25:03.847: ppp4 LCP: O CONFREQ [ACKrcvd] id 1 len 11
*Mar 5 02:25:03.847: ppp4 LCP: Callback 6 (0x0D0306)
*Mar 5 02:25:03.851: ppp4 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:25:03.851: ppp4 LCP: I CONFREQ [ACKrcvd] id 2 len 37
*Mar 5 02:25:03.855: ppp4 LCP: MagicNumber 0x4B5A2A81 (0x05064B5A2A81)
*Mar 5 02:25:03.855: ppp4 LCP: PFC (0x0702)
*Mar 5 02:25:03.855: ppp4 LCP: ACFC (0x0802)
*Mar 5 02:25:03.855: ppp4 LCP: EndpointDisc 1 Local

```

```
*Mar 5 02:25:03.855: ppp4 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:25:03.855: ppp4 LCP: (0x897EAE00000004)
*Mar 5 02:25:03.855: ppp4 LCP: O CONFACK [ACKrcvd] id 2 len 37
*Mar 5 02:25:03.859: ppp4 LCP: MagicNumber 0x4B5A2A81 (0x05064B5A2A81)
*Mar 5 02:25:03.859: ppp4 LCP: PFC (0x0702)
*Mar 5 02:25:03.859: ppp4 LCP: ACFC (0x0802)
*Mar 5 02:25:03.859: ppp4 LCP: EndpointDisc 1 Local
*Mar 5 02:25:03.859: ppp4 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:25:03.859: ppp4 LCP: (0x897EAE00000004)
*Mar 5 02:25:03.859: ppp4 LCP: State is Open
*Mar 5 02:25:03.859: ppp4 PPP: Phase is AUTHENTICATING, by this end
*Mar 5 02:25:03.863: ppp4 MS-CHAP: O CHALLENGE id 1 len 21 from "2621 "
*Mar 5 02:25:03.867: ppp4 LCP: I IDENTIFY [Open] id 3 len 18 magic 0x4B5A2A81
MSRASV5.00
*Mar 5 02:25:03.867: ppp4 LCP: I IDENTIFY [Open] id 4 len 28 magic 0x4B5A2A81
MSRAS-1-USHAFIQ-W2K1
*Mar 5 02:25:03.867: ppp4 MS-CHAP: I RESPONSE id 1 len 59 from "cisco"
*Mar 5 02:25:03.867: ppp4 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:25:03.871: ppp4 PPP: Phase is AUTHENTICATING, Unauthenticated User
*Mar 5 02:25:03.871: ppp4 PPP: Sent MSCHAP LOGIN Request
*Mar 5 02:25:03.963: ppp4 PPP: Received LOGIN Response PASS
*Mar 5 02:25:03.963: ppp4 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:25:03.975: Vi4 PPP: Phase is DOWN, Setup
*Mar 5 02:25:03.975: Tnl/Sn5/5 PPTP: Virtual interface created for
bandwidth 100000 Kbps
*Mar 5 02:25:03.979: Vi4 Tnl/Sn5/5 PPTP: VPDN session up
*Mar 5 02:25:03.983: %LINK-3-UPDOWN: Interface Virtual-Access4, changed state to up
*Mar 5 02:25:03.983: Vi4 PPP: Phase is AUTHENTICATING, Authenticated User
*Mar 5 02:25:03.983: Vi4 MS-CHAP: O SUCCESS id 1 len 4
*Mar 5 02:25:03.987: Vi4 PPP: Phase is UP
*Mar 5 02:25:03.987: Vi4 IPCP: O CONFREQ [Closed] id 1 len 10
*Mar 5 02:25:03.987: Vi4 IPCP: Address 172.16.142.191 (0x0306AC108EBF)
*Mar 5 02:25:03.987: Vi4 CCP: O CONFREQ [Closed] id 1 len 10
*Mar 5 02:25:03.987: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:25:03.987: Vi4 PPP: Process pending packets
*Mar 5 02:25:03.995: Vi4 CCP: I CONFREQ [REQsent] id 5 len 10
*Mar 5 02:25:03.995: Vi4 CCP: MS-PPC supported bits 0x01000001 (0x120601000001)
*Mar 5 02:25:03.999: Vi4 CCP: O CONFNAK [REQsent] id 5 len 10
*Mar 5 02:25:03.999: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:25:03.999: Vi4 CCP: I CONFNAK [REQsent] id 1 len 10
*Mar 5 02:25:03.999: Vi4 CCP: MS-PPC supported bits 0x01000040 (0x120601000040)
*Mar 5 02:25:03.999: Vi4 CCP: O CONFREQ [REQsent] id 2 len 10
*Mar 5 02:25:03.999: Vi4 CCP: MS-PPC supported bits 0x01000040 (0x120601000040)
*Mar 5 02:25:04.003: Vi4 IPCP: I CONFREQ [REQsent] id 6 len 34
*Mar 5 02:25:04.003: Vi4 IPCP: Address 0.0.0.0 (0x030600000000)
*Mar 5 02:25:04.003: Vi4 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar 5 02:25:04.003: Vi4 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar 5 02:25:04.003: Vi4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar 5 02:25:04.003: Vi4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar 5 02:25:04.003: Vi4 AAA/AUTHOR/IPCP: Start. Her address 0.0.0.0, we want 0.0.0.0
*Mar 5 02:25:04.007: Vi4 AAA/AUTHOR/IPCP: Done. Her address 0.0.0.0, we want 0.0.0.0
*Mar 5 02:25:04.007: Vi4 IPCP: Pool returned 192.168.1.4
*Mar 5 02:25:04.007: Vi4 IPCP: O CONFREQ [REQsent] id 6 len 28
*Mar 5 02:25:04.007: Vi4 IPCP: PrimaryDNS 0.0.0.0 (0x810600000000)
*Mar 5 02:25:04.007: Vi4 IPCP: PrimaryWINS 0.0.0.0 (0x820600000000)
*Mar 5 02:25:04.007: Vi4 IPCP: SecondaryDNS 0.0.0.0 (0x830600000000)
*Mar 5 02:25:04.011: Vi4 IPCP: SecondaryWINS 0.0.0.0 (0x840600000000)
*Mar 5 02:25:04.011: Vi4 IPCP: I CONFACK [REQsent] id 1 len 10
*Mar 5 02:25:04.011: Vi4 IPCP: Address 172.16.142.191 (0x0306AC108EBF)
*Mar 5 02:25:04.015: Vi4 CCP: I CONFREQ [REQsent] id 7 len 10
*Mar 5 02:25:04.015: Vi4 CCP: MS-PPC supported bits 0x01000040 (0x120601000040)
*Mar 5 02:25:04.015: Vi4 CCP: O CONFACK [REQsent] id 7 len 10
*Mar 5 02:25:04.015: Vi4 CCP: MS-PPC supported bits 0x01000040 (0x120601000040)
*Mar 5 02:25:04.019: Vi4 CCP: I CONFACK [ACKsent] id 2 len 10
*Mar 5 02:25:04.019: Vi4 CCP: MS-PPC supported bits 0x01000040 (0x120601000040)
*Mar 5 02:25:04.019: Vi4 CCP: State is Open
```

```

*Mar 5 02:25:04.023: Vi4 IPCP: I CONFREQ [ACKrcvd] id 8 len 10
*Mar 5 02:25:04.027: Vi4 IPCP:   Address 0.0.0.0 (0x030600000000)
*Mar 5 02:25:04.027: Vi4 IPCP: O CONFNAK [ACKrcvd] id 8 len 10
*Mar 5 02:25:04.027: Vi4 IPCP:   Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:25:04.031: Vi4 IPCP: I CONFREQ [ACKrcvd] id 9 len 10
*Mar 5 02:25:04.031: Vi4 IPCP:   Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:25:04.031: Vi4 IPCP: O CONFACK [ACKrcvd] id 9 len 10
*Mar 5 02:25:04.031: Vi4 IPCP:   Address 192.168.1.4 (0x0306C0A80104)
*Mar 5 02:25:04.031: Vi4 IPCP: State is Open
*Mar 5 02:25:04.035: Vi4 IPCP: Install route to 192.168.1.4
*Mar 5 02:25:04.035: Vi4 IPCP: Add link info for cef entry 192.168.1.4
*Mar 5 02:25:04.983: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Virtual-Access4, changed state to up

```

This **show user** output is before MS-CHAP and MPPE are enabled.

```

2621#show user
  Line      User      Host(s)      Idle      Location
*  0 con 0

```

Interface	User	Mode	Idle	Peer Address
Vi4	cisco	PPPoVPDN	00:00:01	192.168.1.4

This **show user** output is after MS-CHAP and MPPE are enabled.

```

2621#show user
  Line      User      Host(s)      Idle      Location
*  0 con 0

```

Interface	User	Mode	Idle	Peer Address
Vi4	cisco	PPPoVPDN	00:00:00	192.168.1.4

This **show ip route connected** output is before MS-CHAP and MPPE are enabled.

```

2621#show ip route connected
  172.16.0.0/24 is subnetted, 1 subnets
C    172.16.142.0 is directly connected, FastEthernet0/0
  10.0.0.0/24 is subnetted, 1 subnets
C    10.100.100.0 is directly connected, Loopback0
  192.168.1.0/32 is subnetted, 1 subnets
C    192.168.1.4 is directly connected, Virtual-Access4

```

This **show vpdn** output is before MS-CHAP and MPPE are enabled.

```

2621#show vpdn

%No active L2TP tunnels

%No active L2F tunnels

PPTP Tunnel and Session Information Total tunnels 1 sessions 1

```

LocID	Remote Name	State	Remote Address	Port	Sessions	VPDN Group
3		estab	171.69.89.81	4737	1	1

```

LocID RemID TunID Intf  Username      State  Last Chg Uniq ID
3      32768 3      Vi4  cisco        estab  00:01:44 2

%No active PPPoE tunnels

```

This **show vpdn** output is after MS-CHAP and MPPE are enabled.

```

2621#show vpdn

```



```
%No active L2TP tunnels
```

```
%No active L2F tunnels
```

```
PPTP Tunnel and Session Information Total tunnels 1 sessions 1
```

LocID	Remote Name	State	Remote Address	Port	Sessions	VPDN Group
5		estabd	171.69.89.81	4893	1	1

LocID	RemID	TunID	Intf	Username	State	Last Chg	Uniq ID
5	0	5	Vi4	cisco	estabd	00:00:37	4

```
%No active PPPoE tunnels
```

## Troubleshoot

This section provides information you can use to troubleshoot your configuration.

## Troubleshooting Commands

Certain **show** commands are supported by the Output Interpreter Tool (registered customers only) , which allows you to view an analysis of **show** command output.

**Note:** Refer to Important Information on Debug Commands before you use **debug** commands.

- **clear vpdn tunnel pptp** Used to shut down a specified tunnel and all sessions within the tunnel and clears the specified PPTP tunnel

```
2621#clear vpdn tunnel pptp ip remote 171.69.89.81
Starting to clear the tunnel
```

```
2621#
*Mar 5 02:27:35.611: Vi4 PPP: Sending Acct Event[Down] id[5]
*Mar 5 02:27:35.611: Vi4 VPDN: Reseting interface
*Mar 5 02:27:35.611: Vi4 PPP: Block vaccess from being freed [0x1D]
*Mar 5 02:27:35.619: %LINK-3-UPDOWN: Interface Virtual-Access4, changed state to down
*Mar 5 02:27:35.619: Vi4 CCP: State is Closed
*Mar 5 02:27:35.623: Vi4 MPPE: Required encryption not negotiated
*Mar 5 02:27:35.623: Vi4 IPCP: Remove link info for cef entry 192.168.1.4
*Mar 5 02:27:35.623: Vi4 PPP: Unlocked by [0x4] Still Locked by [0x1B]
*Mar 5 02:27:35.623: Vi4 PPP: Unlocked by [0x10] Still Locked by [0xB]
*Mar 5 02:27:35.623: Vi4 PPP: Phase is TERMINATING
*Mar 5 02:27:35.627: Vi4 LCP: O TERMREQ [Open] id 2 len 4
*Mar 5 02:27:35.627: Vi4 IPCP: State is Closed
*Mar 5 02:27:35.627: Vi4 PPP: Unlocked by [0x8] Still Locked by [0x3]
*Mar 5 02:27:35.627: Vi4 LCP: State is Closed
*Mar 5 02:27:35.627: Vi4 PPP: Phase is DOWN
*Mar 5 02:27:35.627: Vi4 PPP: Unlocked by [0x2] Still Locked by [0x1]
*Mar 5 02:27:35.639: Vi4 IPCP: Remove route to 192.168.1.4
*Mar 5 02:27:35.639: Vi4 PPP: Unlocked by [0x1] Still Locked by [0x0]
*Mar 5 02:27:35.639: Vi4 PPP: Free previously blocked vaccess
*Mar 5 02:27:36.619: %LINEPROTO-5-UPDOWN: Line protocol on Interface
Virtual-Access4, changed state to down
```

**Ecryption Mismatch** Debug output of the router configured for 128 strong encryption when the VPN Client is configured for 40 bit encryption.

```
2621#
2621#
*Mar 5 02:29:36.339: ppp5 PPP: Using vpn set call direction
```

```
*Mar 5 02:29:36.339: ppp5 PPP: Treating connection as a callin
*Mar 5 02:29:36.339: ppp5 PPP: Phase is ESTABLISHING, Passive Open
*Mar 5 02:29:36.343: ppp5 LCP: State is Listen
*Mar 5 02:29:38.351: ppp5 LCP: TIMEout: State Listen
*Mar 5 02:29:38.351: ppp5 PPP: Authorization required
*Mar 5 02:29:38.351: ppp5 LCP: O CONFREQ [Listen] id 1 len 15
*Mar 5 02:29:38.351: ppp5 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:29:38.351: ppp5 LCP: MagicNumber 0x1664E006 (0x05061664E006)
*Mar 5 02:29:38.359: ppp5 LCP: I CONFACK [REQsent] id 1 len 15
*Mar 5 02:29:38.359: ppp5 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:29:38.359: ppp5 LCP: MagicNumber 0x1664E006 (0x05061664E006)
*Mar 5 02:29:38.359: ppp5 LCP: I CONFREQ [ACKrcvd] id 1 len 44
*Mar 5 02:29:38.359: ppp5 LCP: MagicNumber 0x793D5ED8 (0x0506793D5ED8)
*Mar 5 02:29:38.363: ppp5 LCP: PFC (0x0702)
*Mar 5 02:29:38.363: ppp5 LCP: ACFC (0x0802)
*Mar 5 02:29:38.363: ppp5 LCP: Callback 6 (0x0D0306)
*Mar 5 02:29:38.363: ppp5 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:29:38.363: ppp5 LCP: EndpointDisc 1 Local
*Mar 5 02:29:38.363: ppp5 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:29:38.363: ppp5 LCP: (0x897EAE00000005)
*Mar 5 02:29:38.363: ppp5 LCP: O CONFREQ [ACKrcvd] id 1 len 11
*Mar 5 02:29:38.367: ppp5 LCP: Callback 6 (0x0D0306)
*Mar 5 02:29:38.367: ppp5 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:29:38.367: ppp5 LCP: I CONFREQ [ACKrcvd] id 2 len 37
*Mar 5 02:29:38.371: ppp5 LCP: MagicNumber 0x793D5ED8 (0x0506793D5ED8)
*Mar 5 02:29:38.371: ppp5 LCP: PFC (0x0702)
*Mar 5 02:29:38.371: ppp5 LCP: ACFC (0x0802)
*Mar 5 02:29:38.371: ppp5 LCP: EndpointDisc 1 Local
*Mar 5 02:29:38.371: ppp5 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:29:38.371: ppp5 LCP: (0x897EAE00000005)
*Mar 5 02:29:38.371: ppp5 LCP: O CONFACK [ACKrcvd] id 2 len 37
*Mar 5 02:29:38.375: ppp5 LCP: MagicNumber 0x793D5ED8 (0x0506793D5ED8)
*Mar 5 02:29:38.375: ppp5 LCP: PFC (0x0702)
*Mar 5 02:29:38.375: ppp5 LCP: ACFC (0x0802)
*Mar 5 02:29:38.375: ppp5 LCP: EndpointDisc 1 Local
*Mar 5 02:29:38.375: ppp5 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:29:38.375: ppp5 LCP: (0x897EAE00000005)
*Mar 5 02:29:38.375: ppp5 LCP: State is Open
*Mar 5 02:29:38.375: ppp5 PPP: Phase is AUTHENTICATING, by this end
*Mar 5 02:29:38.379: ppp5 MS-CHAP: O CHALLENGE id 1 len 21 from "2621 "
*Mar 5 02:29:38.383: ppp5 LCP: I IDENTIFY [Open] id 3 len 18 magic
0x793D5ED8 MSRASV5.00
*Mar 5 02:29:38.383: ppp5 LCP: I IDENTIFY [Open] id 4 len 28 magic
0x793D5ED8 MSRAS-1-USHAFIQ-W2K1
*Mar 5 02:29:38.383: ppp5 MS-CHAP: I RESPONSE id 1 len 59 from "cisco"
*Mar 5 02:29:38.383: ppp5 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:29:38.387: ppp5 PPP: Phase is AUTHENTICATING, Unauthenticated User
*Mar 5 02:29:38.387: ppp5 PPP: Sent MSCHAP LOGIN Request
*Mar 5 02:29:38.475: ppp5 PPP: Received LOGIN Response PASS
*Mar 5 02:29:38.479: ppp5 PPP: Phase is FORWARDING, Attempting Forward
*Mar 5 02:29:38.483: Vi4 PPP: Phase is DOWN, Setup
*Mar 5 02:29:38.483: Tnl/Sn6/6 PPTP: Virtual interface created for
bandwidth 10000 Kbps
*Mar 5 02:29:38.483: Vi4 Tnl/Sn6/6 PPTP: VPDN session up
*Mar 5 02:29:38.487: %LINK-3-UPDOWN: Interface Virtual-Access4, changed state to up
*Mar 5 02:29:38.487: Vi4 PPP: Phase is AUTHENTICATING, Authenticated User
*Mar 5 02:29:38.487: Vi4 MS-CHAP: O SUCCESS id 1 len 4
*Mar 5 02:29:38.491: Vi4 PPP: Phase is UP
*Mar 5 02:29:38.491: Vi4 IPCP: O CONFREQ [Closed] id 1 len 10
*Mar 5 02:29:38.491: Vi4 IPCP: Address 172.16.142.191 (0x0306AC108EBF)
*Mar 5 02:29:38.491: Vi4 CCP: O CONFREQ [Closed] id 1 len 10
*Mar 5 02:29:38.491: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:29:38.491: Vi4 PPP: Process pending packets
*Mar 5 02:29:38.499: Vi4 CCP: I CONFREQ [REQsent] id 5 len 10
*Mar 5 02:29:38.503: Vi4 CCP: MS-PPC supported bits 0x01000001 (0x120601000001)
*Mar 5 02:29:38.503: Vi4 CCP: O CONFNAK [REQsent] id 5 len 10
```

```

*Mar 5 02:29:38.503: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:29:38.503: Vi4 CCP: I CONFREQ [REQsent] id 1 len 10
*Mar 5 02:29:38.503: Vi4 CCP: MS-PPC supported bits 0x01000060 (0x120601000060)
*Mar 5 02:29:38.503: Vi4 MPPE: Required encryption not negotiated
*Mar 5 02:29:38.503: Vi4 PPP: Sending Acct Event[Down] id[6]
*Mar 5 02:29:38.507: Vi4 CCP: State is Closed
*Mar 5 02:29:38.507: Vi4 MPPE: Required encryption not negotiated
*Mar 5 02:29:38.507: Vi4 PPP: Phase is TERMINATING
*Mar 5 02:29:38.507: Vi4 LCP: O TERMREQ [Open] id 2 len 4
*Mar 5 02:29:38.507: Vi4 IPCP: State is Closed
*Mar 5 02:29:38.507: Vi4 LCP: State is Closed
*Mar 5 02:29:38.511: Vi4 PPP: Phase is DOWN
*Mar 5 02:29:38.511: Vi4 VPDN: Resetting interface
*Mar 5 02:29:38.515: Vi4 PPP: Phase is ESTABLISHING, Passive Open
*Mar 5 02:29:38.515: Vi4 LCP: State is Listen
*Mar 5 02:29:38.515: Vi4 CCP: O CONFREQ [Closed] id 2 len 4
*Mar 5 02:29:38.519: %LINK-3-UPDOWN: Interface Virtual-Access4, changed state to down
*Mar 5 02:29:38.519: Vi4 LCP: State is Closed
*Mar 5 02:29:38.519: Vi4 PPP: Phase is DOWN

```

**Authentication Mismatch** Debug output of the router configured for MS-CHAP and the VPN Client configured for PAP.

```

*Mar 5 02:30:46.555: ppp6 PPP: Using vpn set call direction
*Mar 5 02:30:46.559: ppp6 PPP: Treating connection as a callin
*Mar 5 02:30:46.559: ppp6 PPP: Phase is ESTABLISHING, Passive Open
*Mar 5 02:30:46.559: ppp6 LCP: State is Listen
*Mar 5 02:30:48.559: ppp6 LCP: TIMEout: State Listen
*Mar 5 02:30:48.559: ppp6 PPP: Authorization required
*Mar 5 02:30:48.559: ppp6 LCP: O CONFREQ [Listen] id 1 len 15
*Mar 5 02:30:48.559: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.559: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.575: ppp6 LCP: I CONFNAK [REQsent] id 1 len 8
*Mar 5 02:30:48.575: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.575: ppp6 LCP: O CONFREQ [REQsent] id 2 len 15
*Mar 5 02:30:48.575: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.575: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.579: ppp6 LCP: I CONFREQ [REQsent] id 1 len 44
*Mar 5 02:30:48.579: ppp6 LCP: MagicNumber 0x78FD271D (0x050678FD271D)
*Mar 5 02:30:48.579: ppp6 LCP: PFC (0x0702)
*Mar 5 02:30:48.579: ppp6 LCP: ACFC (0x0802)
*Mar 5 02:30:48.579: ppp6 LCP: Callback 6 (0x0D0306)
*Mar 5 02:30:48.579: ppp6 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:30:48.579: ppp6 LCP: EndpointDisc 1 Local
*Mar 5 02:30:48.583: ppp6 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:30:48.583: ppp6 LCP: (0x897EAE00000006)
*Mar 5 02:30:48.583: ppp6 LCP: O CONFREQ [REQsent] id 1 len 11
*Mar 5 02:30:48.583: ppp6 LCP: Callback 6 (0x0D0306)
*Mar 5 02:30:48.583: ppp6 LCP: MRRU 1614 (0x1104064E)
*Mar 5 02:30:48.587: ppp6 LCP: I CONFNAK [REQsent] id 2 len 8
*Mar 5 02:30:48.587: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.587: ppp6 LCP: O CONFREQ [REQsent] id 3 len 15
*Mar 5 02:30:48.587: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.587: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.591: ppp6 LCP: I CONFREQ [REQsent] id 2 len 37
*Mar 5 02:30:48.591: ppp6 LCP: MagicNumber 0x78FD271D (0x050678FD271D)
*Mar 5 02:30:48.591: ppp6 LCP: PFC (0x0702)
*Mar 5 02:30:48.591: ppp6 LCP: ACFC (0x0802)
*Mar 5 02:30:48.591: ppp6 LCP: EndpointDisc 1 Local
*Mar 5 02:30:48.591: ppp6 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:30:48.595: ppp6 LCP: (0x897EAE00000006)
*Mar 5 02:30:48.595: ppp6 LCP: O CONFACK [REQsent] id 2 len 37
*Mar 5 02:30:48.595: ppp6 LCP: MagicNumber 0x78FD271D (0x050678FD271D)
*Mar 5 02:30:48.595: ppp6 LCP: PFC (0x0702)
*Mar 5 02:30:48.595: ppp6 LCP: ACFC (0x0802)

```

```

*Mar 5 02:30:48.595: ppp6 LCP: EndpointDisc 1 Local
*Mar 5 02:30:48.595: ppp6 LCP: (0x131701E18F20C4D84A435B98EBA4BEA6)
*Mar 5 02:30:48.595: ppp6 LCP: (0x897EAE00000006)
*Mar 5 02:30:48.599: ppp6 LCP: I CONFNAK [ACKsent] id 3 len 8
*Mar 5 02:30:48.599: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.599: ppp6 LCP: O CONFREQ [ACKsent] id 4 len 15
*Mar 5 02:30:48.599: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.599: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.603: ppp6 LCP: I CONFNAK [ACKsent] id 4 len 8
*Mar 5 02:30:48.603: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.607: ppp6 LCP: O CONFREQ [ACKsent] id 5 len 15
*Mar 5 02:30:48.607: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.607: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.611: ppp6 LCP: I CONFNAK [ACKsent] id 5 len 8
*Mar 5 02:30:48.611: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.611: ppp6 LCP: O CONFREQ [ACKsent] id 6 len 15
*Mar 5 02:30:48.611: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.611: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.615: ppp6 LCP: I CONFNAK [ACKsent] id 6 len 8
*Mar 5 02:30:48.615: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.615: ppp6 LCP: O CONFREQ [ACKsent] id 7 len 15
*Mar 5 02:30:48.615: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.619: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.619: ppp6 LCP: I CONFNAK [ACKsent] id 7 len 8
*Mar 5 02:30:48.619: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.623: ppp6 LCP: O CONFREQ [ACKsent] id 8 len 15
*Mar 5 02:30:48.623: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.623: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.627: ppp6 LCP: I CONFNAK [ACKsent] id 8 len 8
*Mar 5 02:30:48.627: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.627: ppp6 LCP: O CONFREQ [ACKsent] id 9 len 15
*Mar 5 02:30:48.627: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.627: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.631: ppp6 LCP: I CONFNAK [ACKsent] id 9 len 8
*Mar 5 02:30:48.631: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.631: ppp6 LCP: O CONFREQ [ACKsent] id 10 len 15
*Mar 5 02:30:48.635: ppp6 LCP: AuthProto MS-CHAP (0x0305C22380)
*Mar 5 02:30:48.635: ppp6 LCP: MagicNumber 0x1665F247 (0x05061665F247)
*Mar 5 02:30:48.635: ppp6 LCP: I CONFNAK [ACKsent] id 10 len 8
*Mar 5 02:30:48.639: ppp6 LCP: AuthProto PAP (0x0304C023)
*Mar 5 02:30:48.639: ppp6 LCP: Failed to negotiate with peer
*Mar 5 02:30:48.639: ppp6 PPP: Sending Acct Event[Down] id[7]
*Mar 5 02:30:48.639: ppp6 LCP: O TERMREQ [ACKsent] id 11 len 4
*Mar 5 02:30:48.639: ppp6 PPP: Phase is TERMINATING
*Mar 5 02:30:48.647: ppp6 LCP: I TERMACK [TERMsent] id 11 len 4
*Mar 5 02:30:48.647: ppp6 LCP: State is Closed
*Mar 5 02:30:48.647: ppp6 PPP: Phase is DOWN

```

## Related Information

- [Configuring the Cisco Secure PIX Firewall to use PPTP](#)
- [PPTP Support Page](#)
- [Technical Support & Documentation – Cisco Systems](#)

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