

VPN Example - Windows PPTP

Windows PPTP Topology



Create PPTP server on Windows 7.

- 1. Allow port 1723 and 1701 on windows firewall, or close windows 7 firewall.
- 2. Click network icon at the bottom of screen, then click "Open Network and Sharing Center".



ĵι	🖮 🌜 🚳 🔅 🎯 🗸	09:40
	Open Network and Sharing Center	
2	Tenda 301800	at 1
	devil	-11
	AQS-777	-11
	TP-LINK_180B	-11
	cisco_denty Connected	d]
	wireless	^

3. Click "Network and Sharing Center".



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4. On the Network Connections window, click "File" then "New Incoming Connection..."

Image: Status Image: Status Diagnore Image: Status	✓ 4 Search Network Connections
ile Edit View Tools Advanced Help Connect Status Diagone Incal network	
Connect Status Diagnose Iocal network	
Status Diagnose local network	
Network cable unplugged	VirtualBox Host-Only Network Enabled
New Incoming Connection Realtek PCIe GBE Family Cont	roller VirtualBox Host-Only Ethernet Ad
Create Copy Create Copy MERCURY Wireless N Adapter	r
Create shortcut	
Delete	
Rename	
Properties	
Close	

5. Select existed user accounts for the PPTP server.

_				x
\bigcirc	Allow connections to this computer			
	Who may connect to this computer?			
	Select the check box next to a name to allow that person access to this compute network.	r and		
	User accounts on this computer:			
	Administrator			
	Guest Guest			
	HomeGroupUser\$ (HomeGroupUser\$)			
	✓ Stype of the second seco			
	Add someone Account Properties			
		Next	Ca	ncel

6. If all existed user account is not you wanted, click button "Add someone..." to create one.

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7. After the configuring user account is done, click button "Next".

\bigcirc	Allow connections to this computer	
	Who may connect to this computer?	
	Select the check box next to a name to allow that person access to this compute network.	r and
	User accounts on this computer:	
	Administrator	
	🗆 🔝 Guest	
	🗆 🜆 HomeGroupUser\$ (HomeGroupUser\$)	
	🗹 🔝 vpntest (vpntest)	
	🗹 🛃 vpntest2 (vpntest2)	
	Add someone Account Properties	1
		Next Cancel

8. Select the check box "Through the Internet", then click button "Next".

		23
G 😰 Allow connections to this computer	-	
How will people connect?		
✓ Through the Internet		
Another computer can connect to this one using a virtual private network (VPN connection.	1)	
	Next Car	ncel

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 Select the check box of protocols or functionalities you want. Then double click "Internet Protocol Version 4(TCP/IPv4)"

			23
O	Allow connections to this computer		
	Networking software allows this computer to accept connections fro kinds of computers	m other	
	Select the check box next to each type of networking software that should be enabled for incoming connections.		
	Networking software:		
	☑ ≆ Internet Protocol Version 4 (TCP/IPv4)		
	□ 🚰 Internet Protocol Version 6 (TCP/IPv6)		
	🗹 🌉 File and Printer Sharing for Microsoft Networks		
	🗹 🚐 QoS Packet Scheduler		
	Install Uninstall Properties		
	Description:		
	Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.		
	Allow access	Can	cel

10. On the Incoming Ip Properties, Specify the IP address range, then click button "OK". Options "Allow callers to access my local area network" and "Allow calling computer to specify its own IP address" are optional. Note: Cell router works as PPTP client, it never specify its own IP address, the IP address is assigned during PPTP negotiation period.

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IP address assignment Assign IP addresses automatically using DHCP Specify IP addresses	
 Assign IP addresses automatically using DHCP Specify IP addresses 	
Specify IP addresses	
From: 192 . 168 . 5 . 100	
To: 192 . 168 . 5 . 200	
Total: 101	
Allow calling computer to specify its own IP address	

11. Click button "Allow access" to finish

0	Pallow connections to this computer
	Networking software allows this computer to accept connections from other kinds of computers
	Select the check box next to each type of networking software that should be enabled for incoming connections.
	Networking software:
	☑ ≆ Internet Protocol Version 4 (TCP/IPv4)
	□ ¥ Internet Protocol Version 6 (TCP/IPv6)
	☑ ➡ File and Printer Sharing for Microsoft Networks ☑ ➡ QoS Packet Scheduler
	Install Uninstall Properties
	Description:
	Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.
	Allow access Cancel

12. Click "Close".

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Allow connections to this computer	
The people you chose can now connect to this computer	
To connect, they will need the following information:	
Computer name: MS-20150503MWOL	
Print this information	
	Close

13. Refresh Network Connections window, a new connection created.

A REAL FRANCE - 208	- X X & STX	
G → 🗜 ► Control Panel ► Networ	k and Internet Network Connections	 ✓ ✓
File Edit View Tools Advanced H	elp	
Organize 🔻		
51VPN conn Disconnected WAN Miniport (IKEv2)	Iocal network Network cable unplugged Realtek PCIe GBE Family Controller	VirtualBox Host-Only Network Enabled VirtualBox Host-Only Ethernet Ad
VPN connect Disconnected WAN Miniport (IKEv2)	wireless cisco_denty MERCURY Wireless N Adapter	传入的连接 No clients connected

Setup PPTP client on Router

1. Click "Services" at the left navigation bar, then Click "VPN", Click "PPTP".

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Status	IPSec PPTP L2TP OpenVPN GRE Tunnel
System	100
Services	IPSec
ICMP Check	IPSec Configuration
VRRP	Enable
Failover	Exchange mode
SNMP	
DTU	Authentication method Server
GPS	Demote VDN and spint
SMS	
VPN	Local VPN endpoint Auto
DDNS	
Connect Radio Module	Presnared Keys
Network	
Logout	Local subnet 192.168.1.0/24
	Remote subnet 192.168.10.0/24

2. Input new instance name, select "Client" as role, then click button "Add New".

IPSec	PPTP	L2TP	OpenVPN	GRE Tunnel			
Point-	Point-to-Point Tuneling Protocol						
PPTP C Below is a li	onfigura	ation ured PPTP in	stances and t	heir state.			
Name		Тур	е	Enable			
		Ser	/er	No	Z Edit Delete		
New insta	nce name	vpntest		Role: Client	t Add New		

3. Click button "Edit" to configure this VPN instance.

IPSec F	PTP L2TP	OpenVPN	GRE Tunnel	
scs: New F	PTP client inst	ance created suc	cessfully, configure it	
oint-to-	Point Tu	neling Pro	otocol	
	figuration			
FIF Con	inguration			
elow is a list o	f configured PP	TP instances and t	their state.	
Name	f configured PP	TP instances and t Type	their state. Enable	
Name	f configured PP	TP instances and t Type Server	their state. Enable No	Z Edit Delete
Name Vpntest	f configured PP	TP instances and t Type Server Client	their state. Enable No No	Z Edit Delete

4. Select checkbox "Enable", input server IP address or domain name. input the username and password which are in consistency with PPTP server. Then click button "Save & Apply".



Windows PPTP Topology

5. Goto "Network"→"Interfaces". A new interface "VPNTEST" is created, which has the same name with PPTP instance. The interface is up with IPv4 address 192.168.5.101.

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Status	Interfaces						
System	Interface Overview						
Services							
Network	Network Status	Actions					
Operation Mode Mobile	VPNTEST Uptime: 0h	0m 12s B (46 Pkts.) B (10 Pkts.) 68.5.101/32					
Interfaces Wi-Fi Firewall	LAN Uptime: 0h B ⁽²⁾ (2000) br-lan XX: 4.42 KE TX: 6.62 KE IPv4: 192.14 IPv6: fdff.ce	11m 20s ss: 90:22:00:80:06:00					
Switch	IFMOBILE Unsupported	d protocol type. 🦉 Connect 🥘 Stop 🗷 Edit					
Hostnames Diagnostics Loopback Interface	WAN Uptime: 0h @:** MAC-Addre eth0.2 TX: 211.28 TX: 211.28 IPv4: 192.10	9m 3s sss: 90:22:00:C0:06:00 KB (1034 Pkts.) KB (596 Pkts.) 68.20.107/24					

6. Ping PPTP server from Router:

Status	Diagnostics					
System	Network Itilities					
Services	Network Otinities					
Network	192.168.5.100 www.google.com www.google.com					
Operation Mode	IPv4 V Ping Traceroute Nslookup					
Mobile						
LAN	PING 192.168.5.100 (192.168.5.100): 56 data bytes					
Interfaces	64 bytes from 192.168.5.100; seq=0 ttl=64 time=20.520 ms					
Wi-Fi	64 bytes from 192.168.5.100: seq=2 ttl=64 time=8.140 ms					
Firewall	64 bytes from 192.168.5.100: seq=3 ttl=64 time=9.920 ms 64 bytes from 192.168.5.100: seq=4 ttl=64 time=5.080 ms					
Static Routes	192.168.5.100 ping statistics					
Switch	5 packets transmitted, 5 packets received, 0% packet loss					
DHCP and DNS	round-trip min/avg/max = 5.080/10.800/20.520 m8					
Hostnames						
Diagnostics						
Loopback Interface						

- 7. If the ping failed, please close windows firewall and try again.
- 8. Ping PPTP server from the PC behind Router:

```
dentydeMacBook-Pro-3:~ apple$ ping 192.168.5.100
PING 192.168.5.100 (192.168.5.100): 56 data bytes
64 bytes from 192.168.5.100: icmp_seq=0 ttl=63 time=17.361 ms
64 bytes from 192.168.5.100: icmp_seq=1 ttl=63 time=16.176 ms
64 bytes from 192.168.5.100: icmp_seq=3 ttl=63 time=8.808 ms
64 bytes from 192.168.5.100: icmp_seq=4 ttl=63 time=5.227 ms
64 bytes from 192.168.5.100: icmp_seq=5 ttl=63 time=7.818 ms
64 bytes from 192.168.5.100: icmp_seq=6 ttl=63 time=20.594 ms
^C
--- 192.168.5.100 ping statistics ---
7 packets transmitted, 7 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 5.227/11.985/20.594/5.481 ms
dentydeMacBook-Pro-3:~ apple$ []
```

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9. Ping Router from windows 7:

C:\Users\Administrator>ping 192.168.5.101

Pinging 192.168.5.101 with 32 bytes of data: Reply from 192.168.5.101: bytes=32 time=4ms TTL=64 Reply from 192.168.5.101: bytes=32 time=4ms TTL=64 Reply from 192.168.5.101: bytes=32 time=12ms TTL=64

```
Ping statistics for 192.168.5.101:
Packets: Sent = 3, Received = 3, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 4ms, Maximum = 12ms, Average = 6ms
```