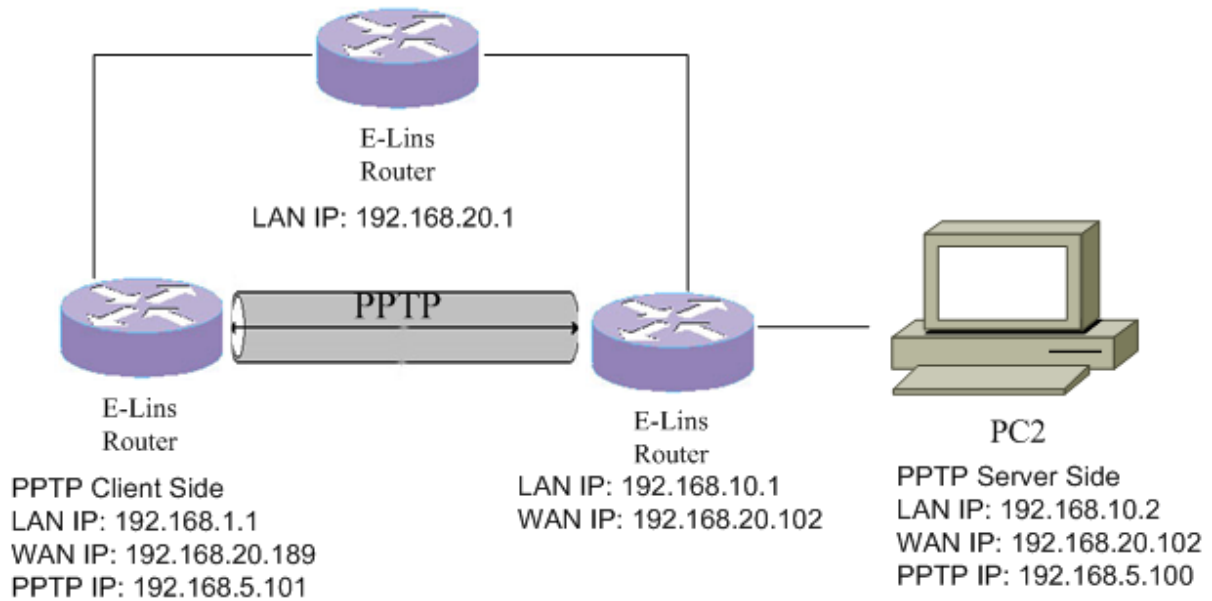


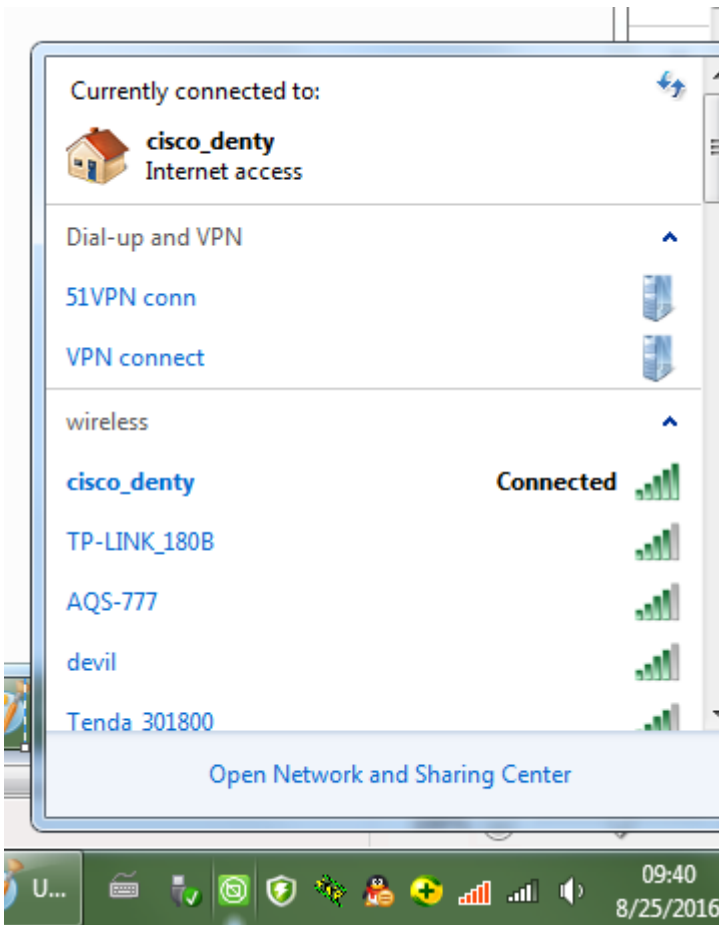
VPN Example - Windows PPTP

Windows PPTP Topology

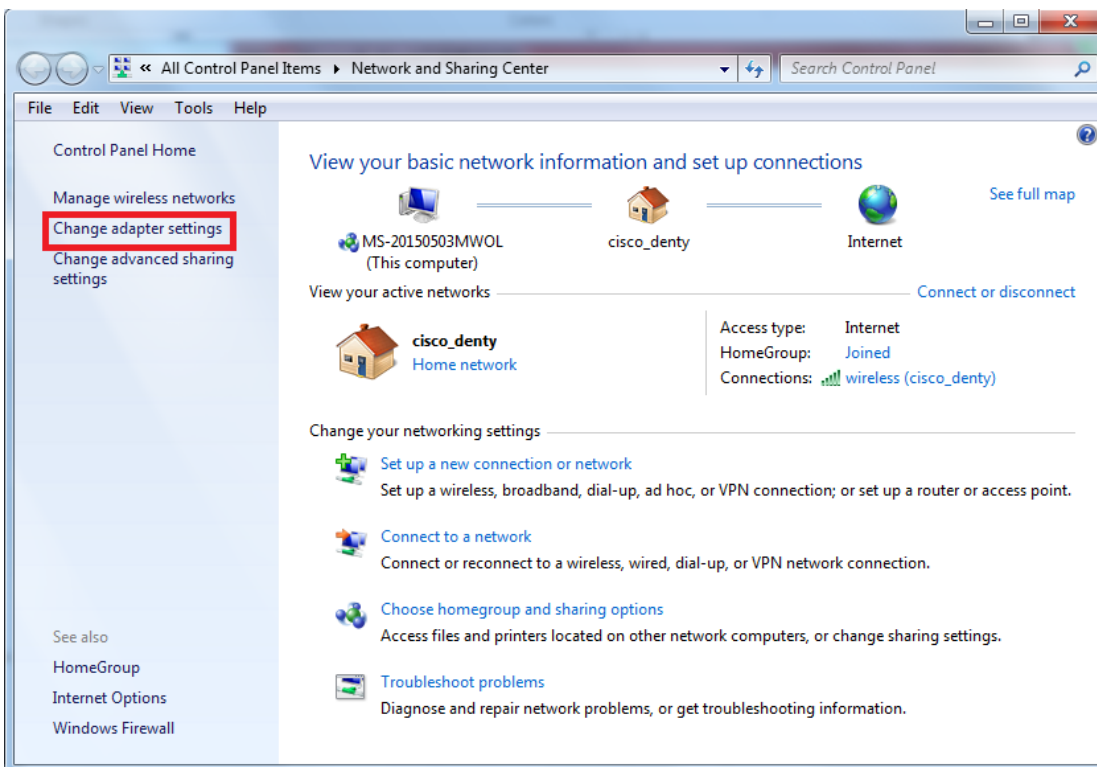


Create PPTP server on Windows 7.

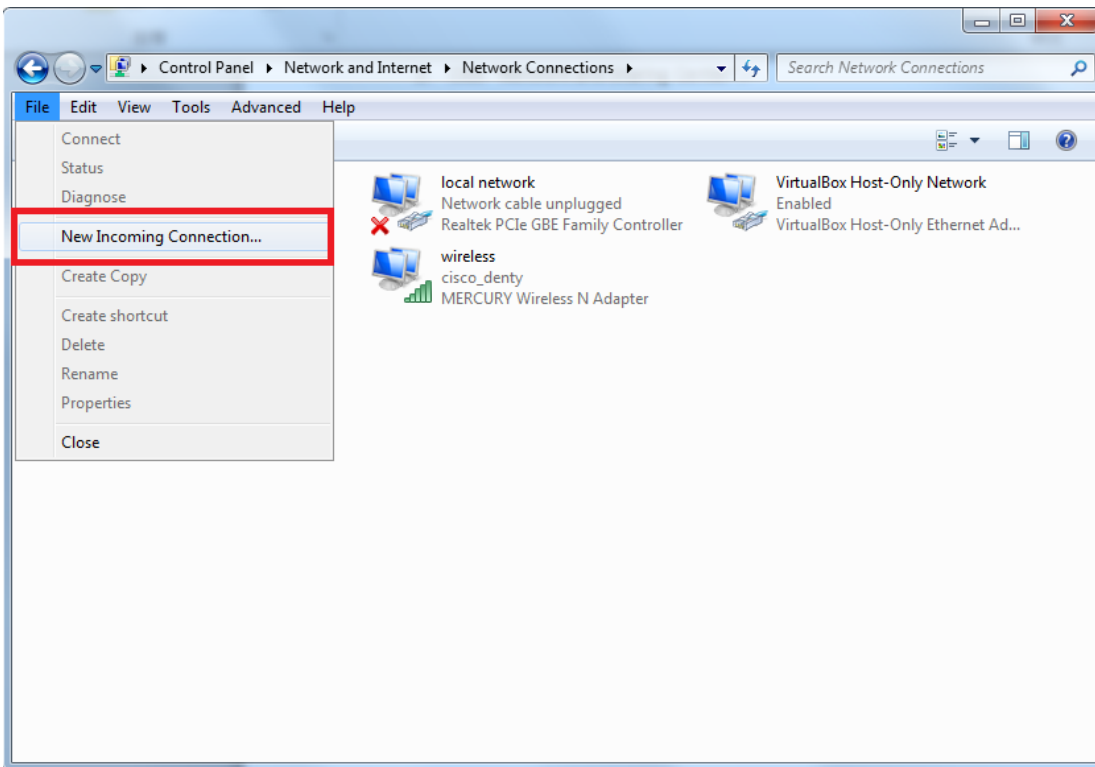
1. Allow port 1723 and 1701 on windows firewall, or close windows 7 firewall.
2. Click network icon at the bottom of screen, then click "Open Network and Sharing Center".



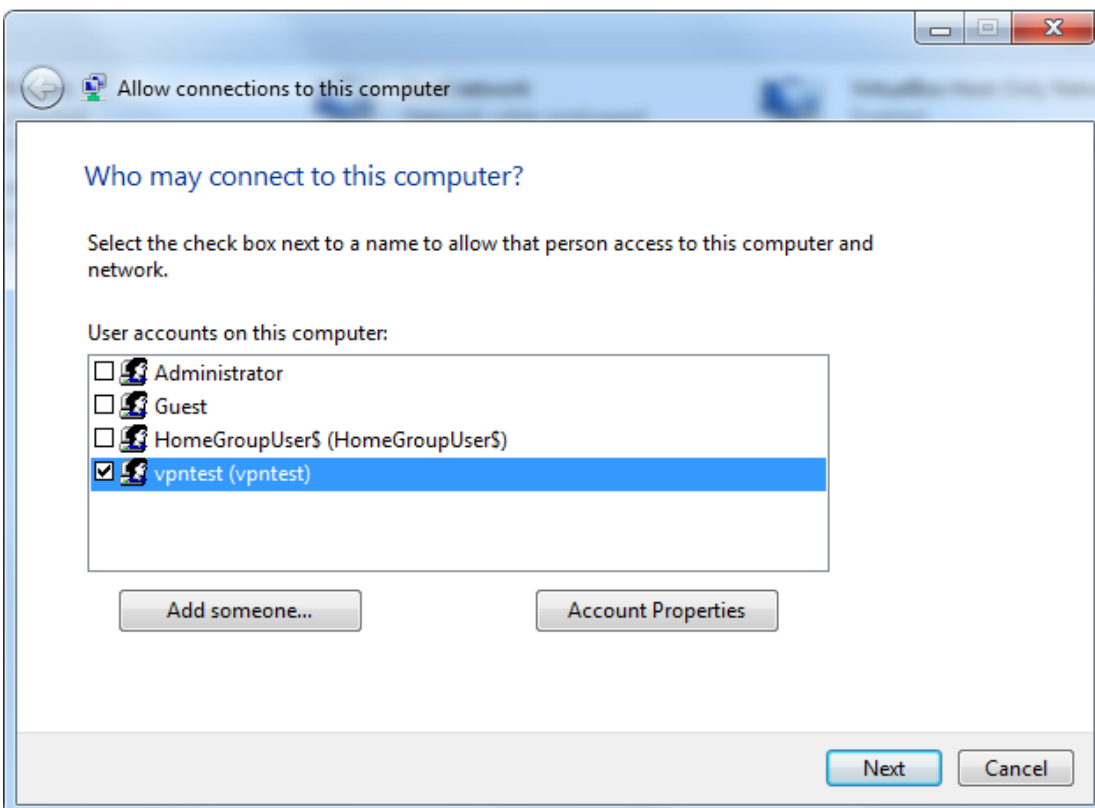
3. Click "Network and Sharing Center".



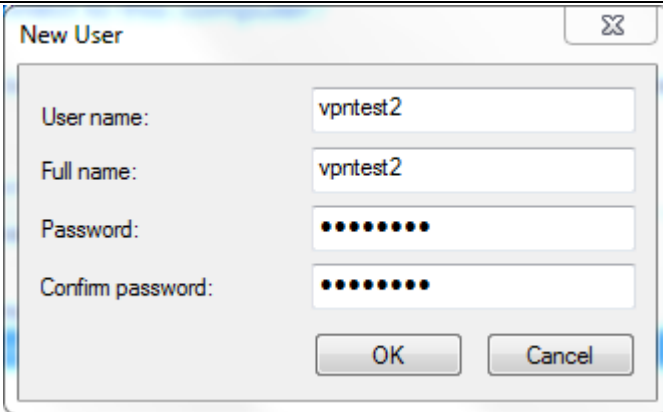
4. On the Network Connections window, click “File” then “New Incoming Connection...”



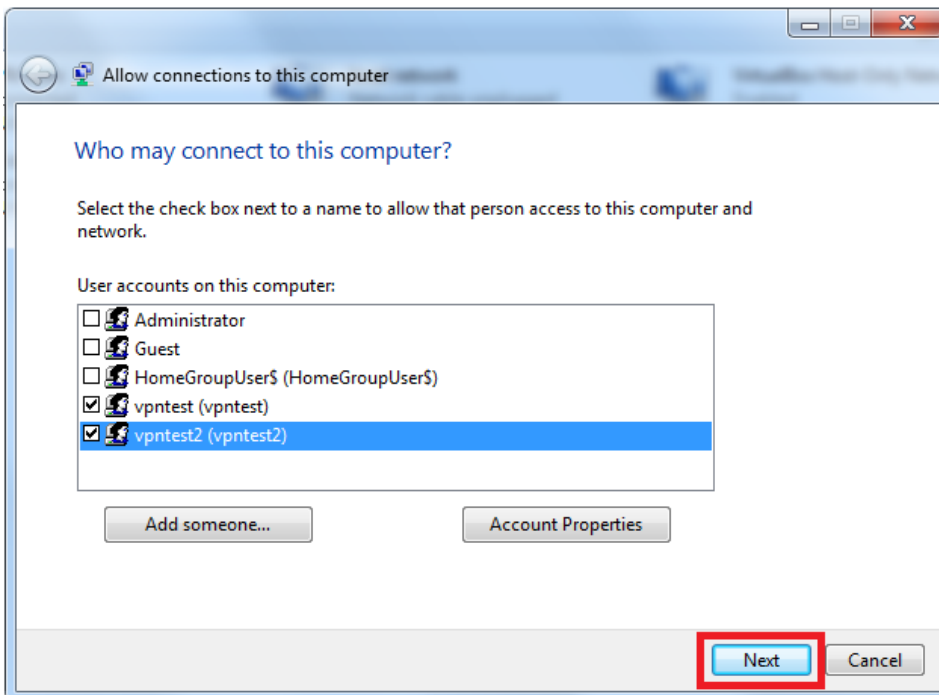
5. Select existed user accounts for the PPTP server.



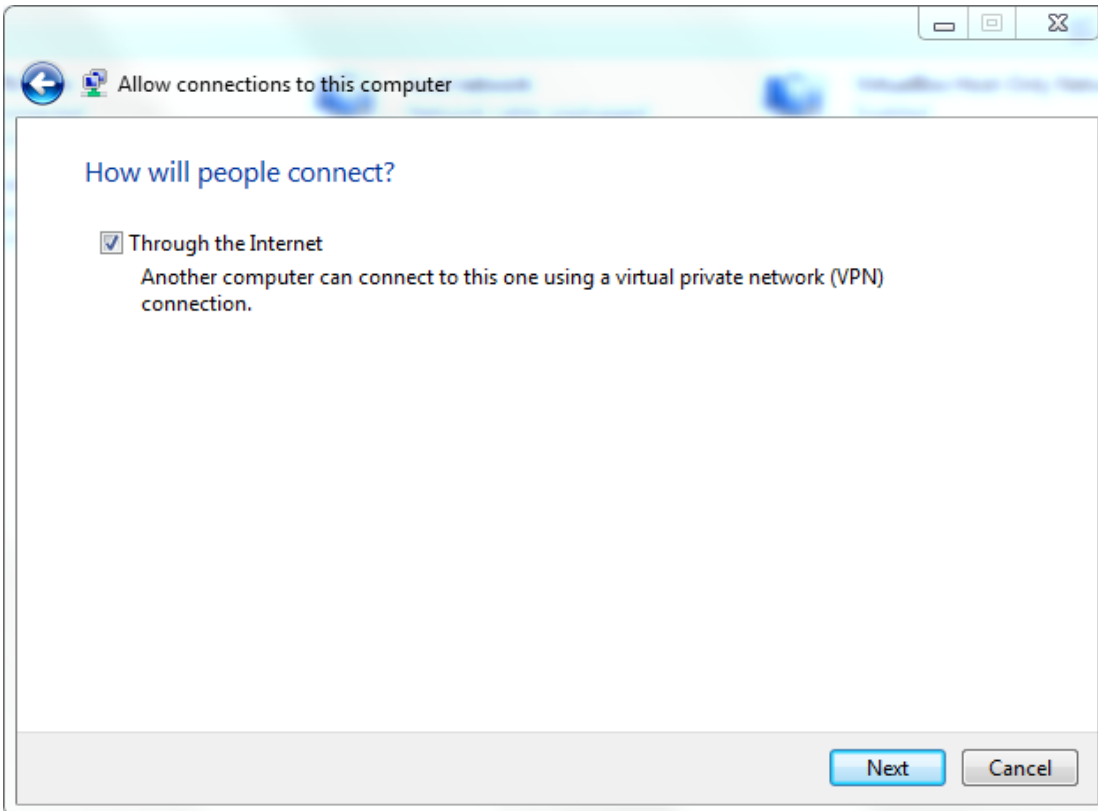
6. If all existed user account is not you wanted, click button “Add someone...” to create one.



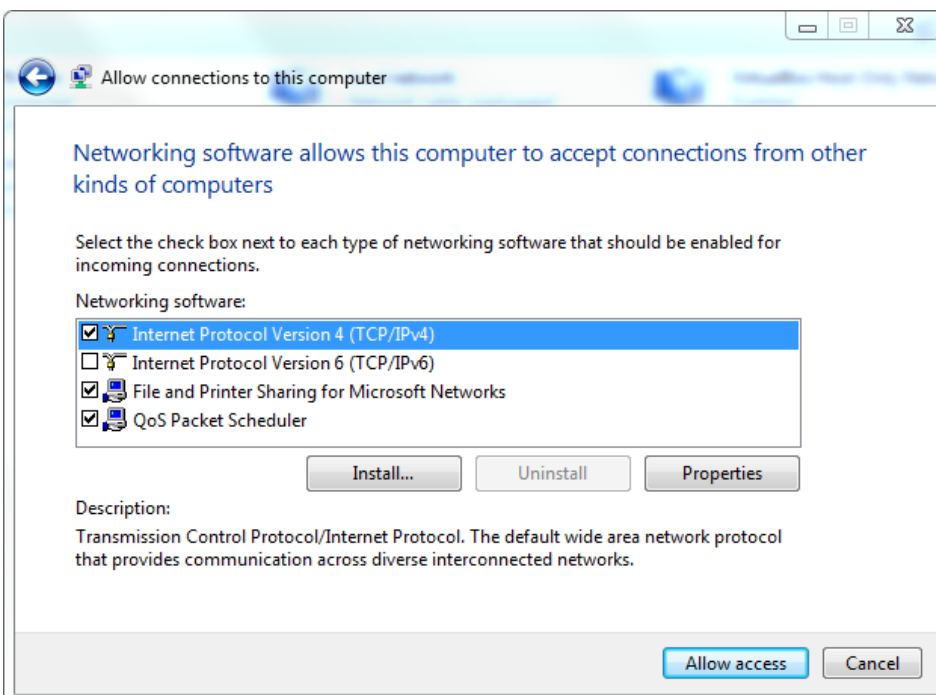
7. After the configuring user account is done, click button "Next".



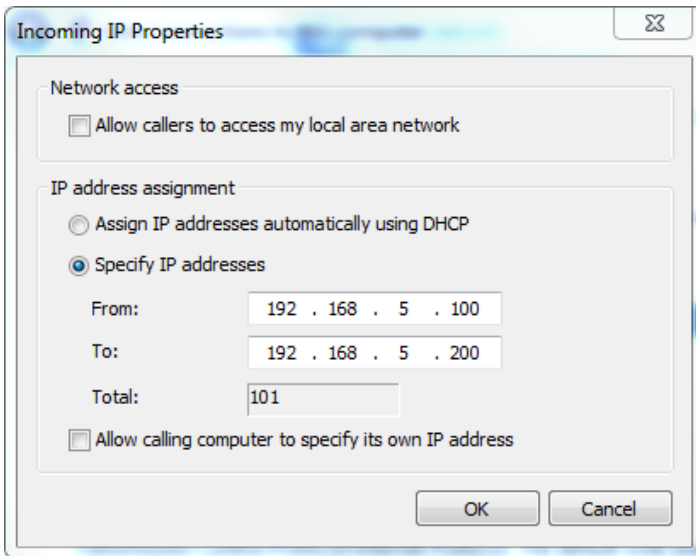
8. Select the check box "Through the Internet", then click button "Next".



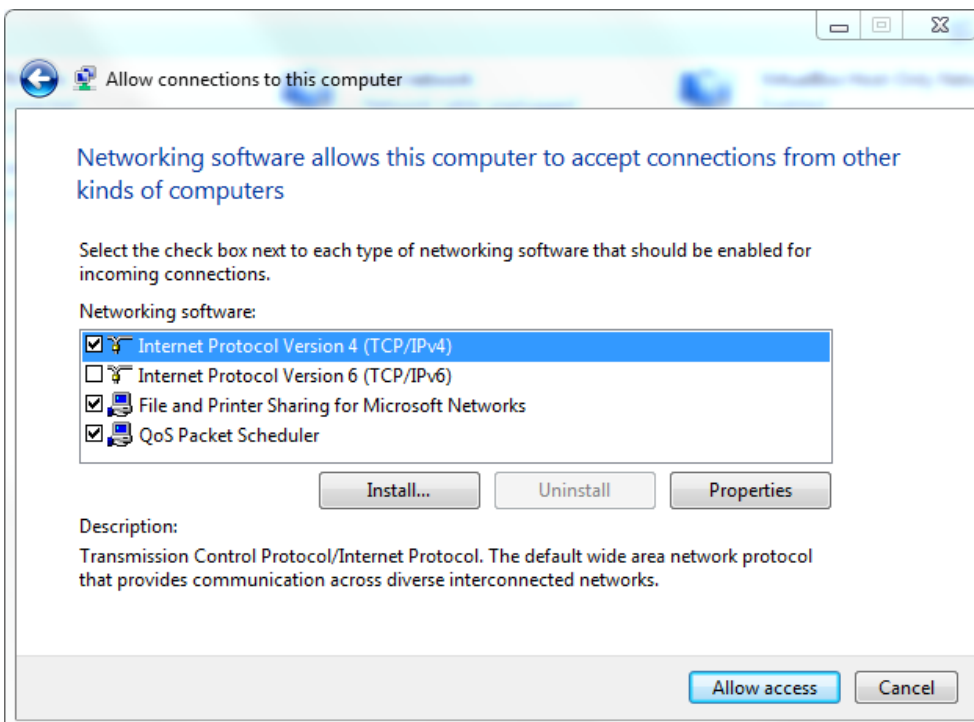
9. Select the check box of protocols or functionalities you want. Then double click "Internet Protocol Version 4(TCP/IPv4)"



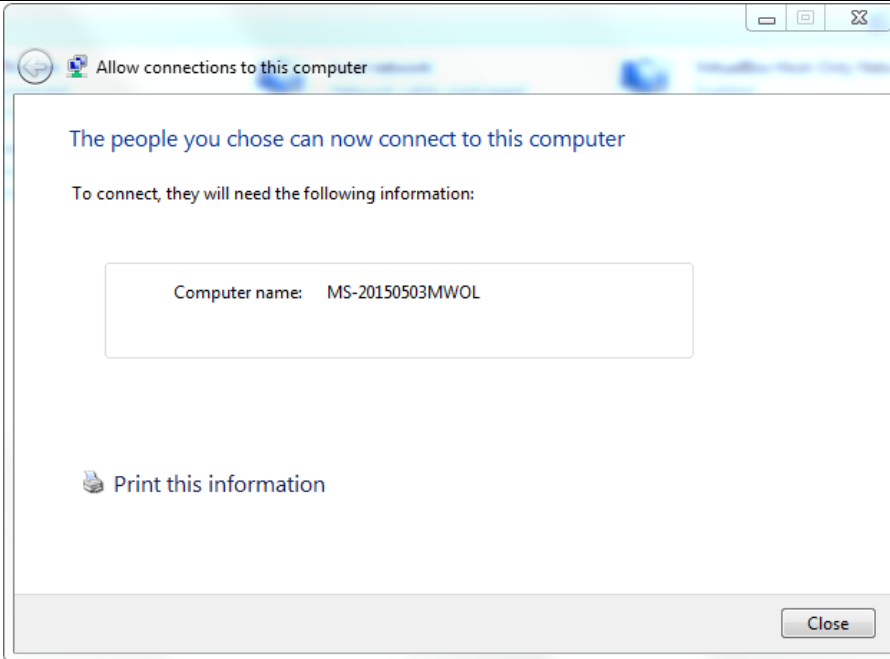
10. On the Incoming Ip Properties, Specify the IP address range, then click button "OK". Options "Allow callers to access my local area network" and "Allow calling computer to specify its own IP address" are optional.
Note: Cell router works as PPTP client, it never specify its own IP address, the IP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



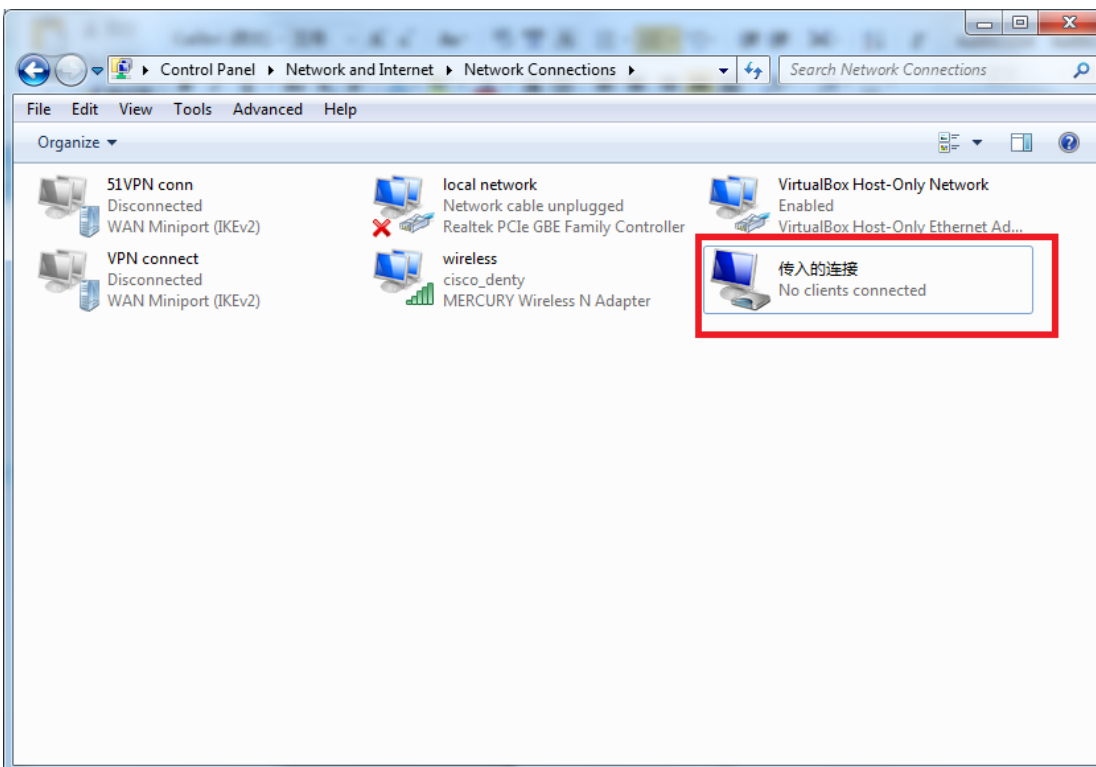
11. Click button “Allow access” to finish



12. Click “Close”.



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



Setup PPTP client on Router

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

The screenshot shows a web interface for configuring VPN services. On the left is a navigation menu with items: Status, System, Services, ICMP Check, VRRP, Failover, SNMP, DTU, GPS, SMS, VPN, DDNS, Connect Radio Module, Network, and Logout. The 'Services' and 'VPN' items are highlighted with red boxes. The main content area is titled 'IPSec' and 'IPSec Configuration'. It includes tabs for IPsec, PPTP, L2TP, OpenVPN, and GRE Tunnel. The PPTP tab is active. Configuration options include: 'Enable' (checkbox), 'Exchange mode' (IKEv1-Main), 'Authentication method' (Server), 'Remote VPN endpoint' (dropdown), 'Local VPN endpoint' (Auto), 'Preshared Keys' (text input), 'Local subnet' (192.168.1.0/24), and 'Remote subnet' (192.168.10.0/24).

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

The screenshot shows the 'Point-to-Point Tunneling Protocol' configuration page. It has tabs for IPsec, PPTP, L2TP, OpenVPN, and GRE Tunnel. The PPTP tab is active. Below the title is the heading 'PPTP Configuration' and a note: 'Below is a list of configured PPTP instances and their state.' A table lists the instances:

Name	Type	Enable	
	Server	No	Edit Delete

Below the table is a form to add a new instance: 'New instance name' (vpntest), 'Role' (Client), and an 'Add New' button. The 'vpntest', 'Client', and 'Add New' elements are highlighted with red boxes.

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

IPSec | **PPTP** | L2TP | OpenVPN | GRE Tunnel

• scs: New PPTP client instance created successfully, configure it

Point-to-Point Tunneling Protocol

PPTP Configuration

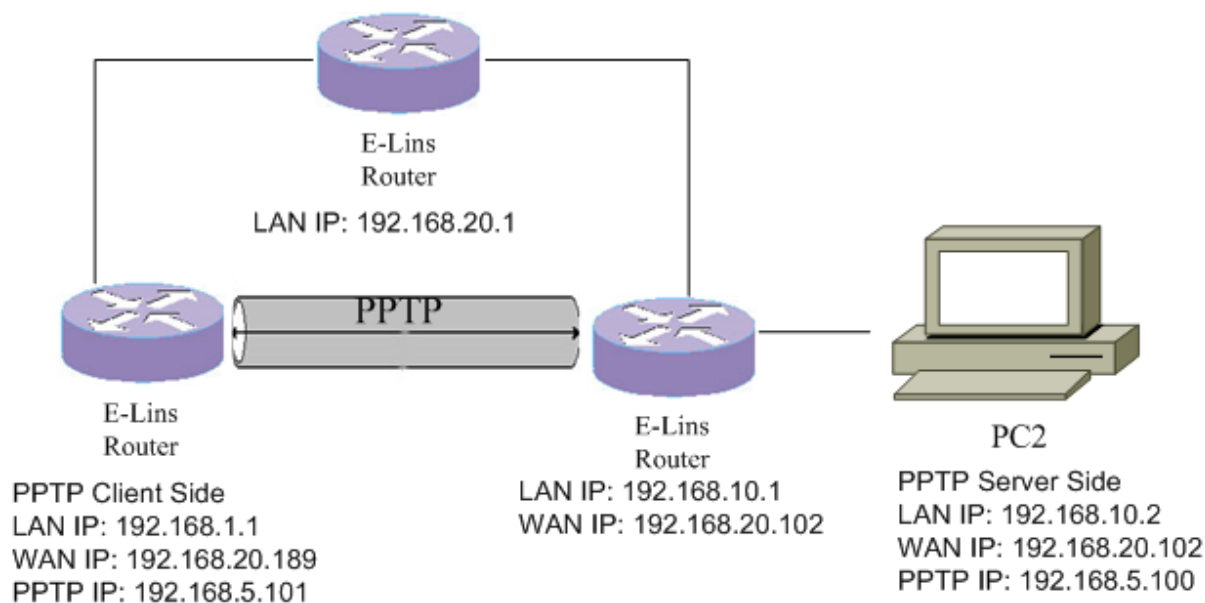
Below is a list of configured PPTP instances and their state.

Name	Type	Enable	
	Server	No	Edit Delete
Vpntest	Client	No	Edit Delete

New instance name: Role: Client

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.

6. Ping PPTP server from Router:

- 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=7.913 ms
64 bytes from 192.168.5.100: icmp_seq=2 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$
```

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
```