

How to use VPN L2TP over IPsec

Server/Client on TW-EAV510 AC

Note:

- 1. Please make sure that both LAN side networks are in different subnet.
- 2. Just some OS support L2TP Tunnel authentication, like Android OS.

Enable VPN L2TP over IPsec Function

Go to **WAN -> VPN -> L2TP/IPSec**, Enable VPN function. Then you can start setup **L2TP/IPSec Server** and **L2TP/IPSec Client** you will see the page as below:

L2TP/IPsec VPN Configuration

This page is used to configure the parameters for L2TP mode VPN.

L2TP/IPsec VPN:

Disable

Enable

L2TP/IPsec Server

Authentication Type:CHAP

Encryption Mode:NONE

Tunnel Authentication

Secret Key

Assigned to Peer IP Address start from:172.168.10.100

Local IP Address:172.168.10.254

IPsec PSKtestforl2tpoveripsec

Apply

Server Account

Name:

Account:

Username:

Disable

Enable

Peer IP:optional, e.g. 10.0.0.1

Password:

Peer Subnet Mask:optional, e.g. 255.255.255

Add

L2TP/IPsec Server Table

Select	Name	Enable	Username	Password
<div></div>	admin	<div></div>	admin	admin

Delete Selected

Save

L2TP/IPsec Client

Name:

Server IP Address:

Username:

Password:

Tunnel Authentication

Secret Key

Authentication Type:CHAP

Encryption Mode:NONE

Default Gateway:

Peer IP:optional, e.g. 10.0.0.1

Peer Subnet Mask:optional, e.g. 255.255.255

IPsec PSK

Add

L2TP/IPsec Client Table

Select	Name	Server	tunnel Auth	PPP Auth	Default Gateway	Peer Network	Action
<div>Delete Selected</div>							

Note: Both Server and Client must use the same tunnel authentication secret key otherwise the connection cannot be established.

Setup L2TP/IPSec Server

L2TP/IPsec Server

Authentication Type:

Encryption Mode:

Tunnel Authentication ☐

Secret Key

Assigned to Peer IP
Address start from:

Local IP Address:

IPsec PSK

Authentication Type: According to user requirement can set 4 types, Auto/PAP/CHAP/MS-CHAPV2.

Encryption Mode: Only work on MS-CHAPV2 Authentication mode, you can choose NONE/MPPE.

Tunnel Authentication: Make it checked to enable L2TP tunnel authentication. (Optional)

Secret Key: Client need this key to connect server if server enable Tunnel Authentication Setup L2TP account for L2TP Server

Assigned to Peer IP Address start from: Enter the IP that will be assigned to remote client. Please avoid this pool same of DHCP Server Pool.

Local IP Address: Default settings is router LAN's IP, do not change if not necessary.

IPSec PSK: Setup password for server certification client

Note: Please press Apply button if any change.

Setup L2TP/IPSec account

Server Account

Name:

Account: ☐ Disable ☒ Enable

Username:

Password:

Peer IP:

Peer Subnet Mask:

Name: The name for user profile.

Account: Enable/Disable this account.

Username: The name will be used for authentication.

Password: The password will be used for authentication.

Peer IP: Optional setting for LAN to LAN, Enter the remote network's IP address.

Peer Subnet Mask: Optional setting for LAN to LAN, Enter the remote network's netmask.

Click **Add** button to add new user. Recommend up to 4 user accounts for both PPTP and L2TP/IPSec.

Remove/Edit user

L2TP/IPSec Server Table				
Select	Name	Enable	Username	Password
<input type="checkbox"/>	admin	<input checked="" type="checkbox"/>	admin	admin
Delete Selected		Save		

Make Remove checkbox checked and click **Delete Selected** button to remove user or click **Save** button to enable/disable of user.

Setup L2TP/IPSec Client from Remote Access

L2TP/IPsec Client

Name:	<input type="text"/>	Server IP Address:	<input type="text"/>
Username:	<input type="text"/>	Password:	<input type="text"/>
Tunnel Authentication	<input type="checkbox"/>	Secret Key	<input type="text"/>
Authentication Type	CHAP ▼	Encryption Mode:	NONE ▼
Default Gateway:	<input type="checkbox"/>		
Peer IP:	optional, e.g. 10.0.0.1	Peer Subnet Mask:	optional, e.g. 255.255.255.0
IPsec PSK	<input type="text"/>		
Add			

L2TP/IPsec Client Table							
Select	Name	Server	tunnel Auth	PPP Auth	Default Gateway	Peer Network	Action
Delete Selected							

Name: The name for L2TP/IPSec Client profile.

Server IP Address: Please input VPN Server WAN IP or domain.

Username: The name will be used for authentication.

Password: The password will be used for authentication.

Tunnel Authentication: Make it checked to enable L2TP tunnel authentication. (Optional).

Secret Key: If server enable Tunnel Authentication and set up Secret Key, client need input the key.

Authentication Type: Enter the type of VPN server authentication.

Encryption Mode: Enter the Mode of VPN server authentication.

Default Gateway: If checkbox checked, VPN client router gateway will set to VPN server router.

Peer IP: Optional setting for LAN to LAN, Enter the remote network's IP address.

Peer Subnet Mask: Optional setting for LAN to LAN, Enter the remote network's netmask.

IPsec PSK: Input server setup IPsec password.

Click **Add** button to add a new L2TP/IPSec Client connection.

Note: Both Server and Client must use the same tunnel authentication secret key otherwise the connection cannot be established.

Remove/Disconnect Client

L2TP/IPSec Client Table

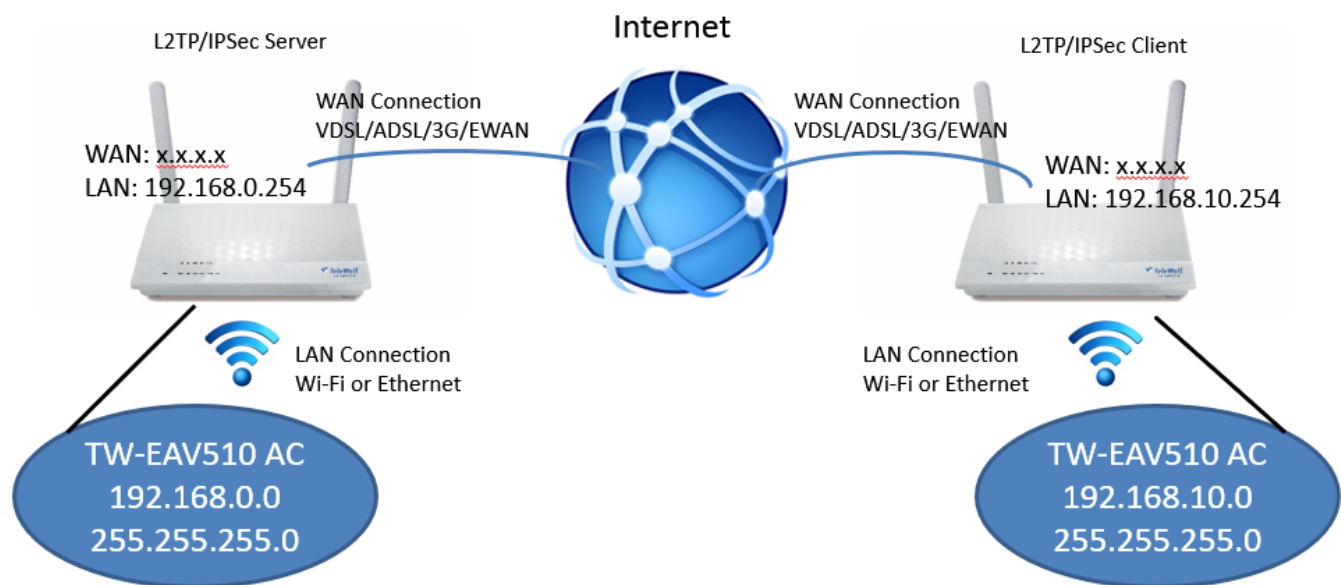
Select	Name	Server	tunnel Auth	PPP Auth	Default Gateway	Peer Network	Action
<input type="checkbox"/>	admin	36.229.14.220	NONE	CHAP	off		<button>Connect</button>

Delete Selected

Make Remove checkbox checked and click **Delete Selected** button to remove Client or click **Connect** button to connect VPN client.

Example 1

TW-EAV510 AC in below pic left side is activated as L2TP/IPSec Server and TW-EAV510 AC in below pic right side is activated as L2TP/IPSec Client.



Remote Access

TW-EAV510 (L2TP/IPSec Server)

1. Go to **WAN -> VPN -> L2TP/IPSec**, enable VPN function.
2. Setup L2TP/IPSec Server and press **Apply** button.
3. Add new user account, don't need input Peer IP/ Peer Subnet Mask.

L2TP/IPsec VPN: ☐ Disable ☒ Enable

L2TP/IPsec Server

Authentication Type:

Encryption Mode:

Tunnel Authentication ☐

Secret Key

Assigned to Peer IP
Address start from:

Local IP Address:

IPsec PSK

Server Account

Name:

Account: ☐ Disable ☒ Enable

Username:

Password:

Peer IP:

Peer Subnet Mask:

Click **Add** button to save changes.

TW-EAV510 AC (L2TP/IPSec Client)

- Go to **WAN -> VPN -> L2TP/IPSec**, enable VPN function, Setting L2TP/IPSec Client as below.

L2TP/IPsec Client

Name:

Server IP Address:

Username:

Password:

Tunnel Authentication ☐

Secret Key

Authentication Type

Encryption Mode:

Default Gateway: ☐

Peer IP:

Peer Subnet Mask:

IPsec PSK

Click **Add** button to save account settings.

- After click **Add** button, **L2TP/IPSec Client Table** would add one connection, if setup all correctly VPN connection should be connected. You can also click **Disconnect** button to disconnect the VPN connection.

L2TP/IPSec Client Table							
Select	Name	Server	tunnel Auth	PPP Auth	Default Gateway	Peer Network	Action
<input type="checkbox"/>	admin	36.229.14.220	NONE	CHAP	off		<input type="button" value="Connect"/>
<input type="button" value="Delete Selected"/>							

- Go to **Status -> Device**, you can check **L2TP/IPSec Configuration** on page below, When **Status** shows **up**, you can access to remote network now. Below is Device Info for reference.

L2TP Configuration				
Interface	Protocol	Local IP Address	Remote IP Address	Status
ppp11	PPP	172.166.0.201	192.168.0.254	up

Refresh

LAN to LAN

TW-EAV510 (L2TP/IPSec Server)

1. Go to **WAN -> VPN -> L2TP/IPSec**, enable VPN function.
2. Setup L2TP/IPSec Server and press **Apply** button.
3. Add new user account, enter remote network's IP address for Peer IP/ Peer Subnet Mask.

L2TP/IPsec Server

Authentication Type:	CHAP ▼	Encryption Mode:	NONE ▼
Tunnel Authentication	<input type="checkbox"/>	Secret Key	<input type="text"/>
Assigned to Peer IP Address start from:	172.168.10.100	Local IP Address:	172.168.10.254
IPsec PSK	testforl2tpoveripsec		

Apply

Server Account

Name:	admin	Account:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Username:	admin	Password:	admin
Peer IP:	192.168.10.254	Peer Subnet Mask:	255.255.255.0

Add

4. After press **Add** button, **L2TP/IPSec Server Table** would add account as below.

L2TP/IPSec Server Table				
Select	Name	Enable	Username	Password
<input type="checkbox"/>	admin	<input checked="" type="checkbox"/>	admin	admin

Delete Selected Save

TW-EAV510 AC (L2TP Client)

1. Go to **WAN -> VPN -> L2TP/IPSec**, enable the L2TP/IPSec VPN, Setting VPN Client as below. For LAN to LAN, you need to enter peer network information.

L2TP/IPsec Client

Name:

Username:

Tunnel Authentication ☐

Authentication Type

Default Gateway: ☐

Peer IP:

IPsec PSK

Server IP Address:

Password:

Secret Key

Encryption Mode:

Peer Subnet Mask:

Add

Click **Add** button to save account settings.

- After click **Add** button, **L2TP/IPSec Client Table** would add one connection, if setup all correctly VPN connection should be connected. You can also click **Disconnect** button to disconnect the VPN connection.

L2TP/IPSec Client Table

Select	Name	Server	tunnel Auth	PPP Auth	Default Gateway	Peer Network	Action
<input type="checkbox"/>	test	114.42.34.209	NONE	CHAP	off	192.168.0.100 255.255.255.0	<input type="button" value="Connect"/>

Delete Selected

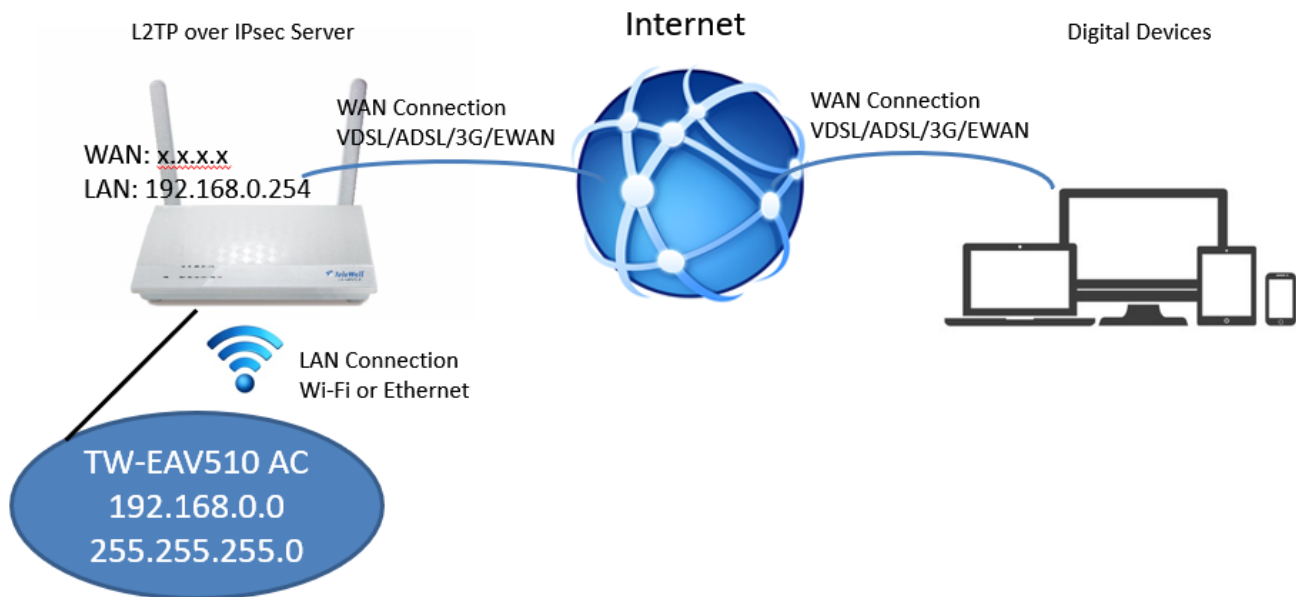
- Go to **Status** -> **Device**, you can check **L2TP/IPSec Configuration** on page below, When **Status** shows **up**, you can access to remote network now. Below is Device Info for reference.

L2TP Configuration

Interface	Protocol	Local IP Address	Remote IP Address	Status
ppp11	PPP	172.166.0.200	192.168.0.254	up

Example 2

TW-EAV510 AC in below pic left side is activated as L2TP/IPSec Server and use devices in right side connect to it.



Remote Access

TW-EAV510 (L2TP over IPsec Server)

1. Go to **WAN -> VPN -> L2TP/IPSec**, enable the VPN function.
2. Setup L2TP/IPSec Server and press Apply button.
3. Add new user account, don't need input Peer IP/ Peer Subnet Mask.
4. It's not necessary to setup Tunnel Authentication, if use Tunnel Authentication, some devices may not connect to server.

L2TP/IPSec VPN Configuration

This page is used to configure the parameters for L2TP mode VPN.

L2TP/IPSec VPN:
☐ Disable
 ☒ Enable

L2TP/IPSec Server

Authentication Type: CHAP
 Encryption Mode: NONE

Tunnel Authentication: ☐
 Secret Key:

Assigned to Peer IP Address start from: 172.168.10.100
 Local IP Address: 172.168.10.254

IPsec PSK: testforl2tpoveripsec

Server Account

Name:
 Account: ☐ Disable ☒ Enable

Username:
 Password:

Peer IP: optional, e.g. 10.0.0.1
 Peer Subnet Mask: optional, e.g. 255.255.255.0

L2TP/IPSec Server Table

Select	Name	Enable	Username	Password
<input type="checkbox"/>	admin	<input checked="" type="checkbox"/>	admin	admin

With Tunnel Authentication (Only Android device support enable this function.)

L2TP/IPSec VPN Configuration

This page is used to configure the parameters for L2TP mode VPN.

L2TP/IPSec VPN: ☐ Disable ☒ Enable

L2TP/IPSec Server

Authentication Type:	CHAP	Encryption Mode:	NONE
Tunnel Authentication	<input checked="" type="checkbox"/>	Secret Key	example
Assigned to Peer IP Address start from:	172.168.10.100	Local IP Address:	172.168.10.254
IPSec PSK	testforl2tpoveripsec		
<input type="button" value="Apply"/>			

Server Account

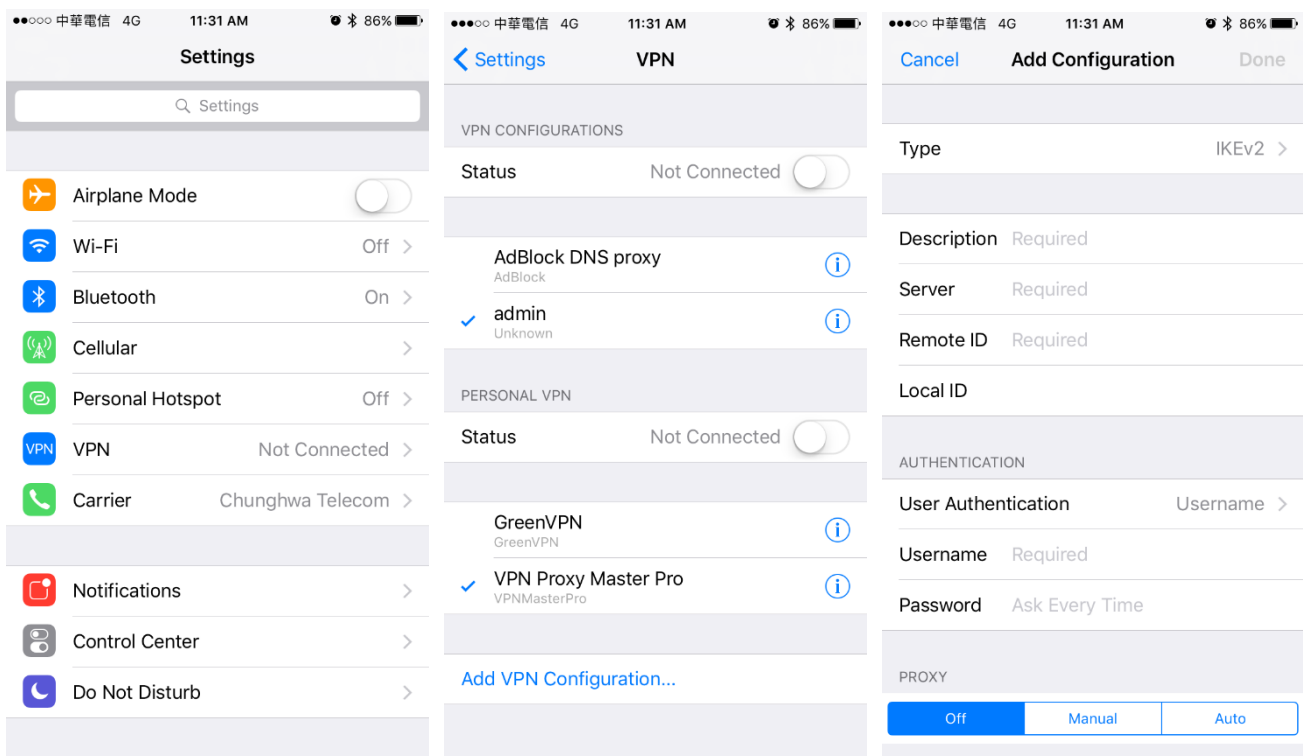
Name:		Account:	<input type="radio"/> Disable <input checked="" type="radio"/> Enable
Username:		Password:	
Peer IP:	optional, e.g. 10.0.0.1	Peer Subnet Mask:	optional, e.g. 255.255.255.0

L2TP/IPSec Server Table

Select	Name	Enable	Username	Password
<input type="checkbox"/>	admin	<input checked="" type="checkbox"/>	admin	admin

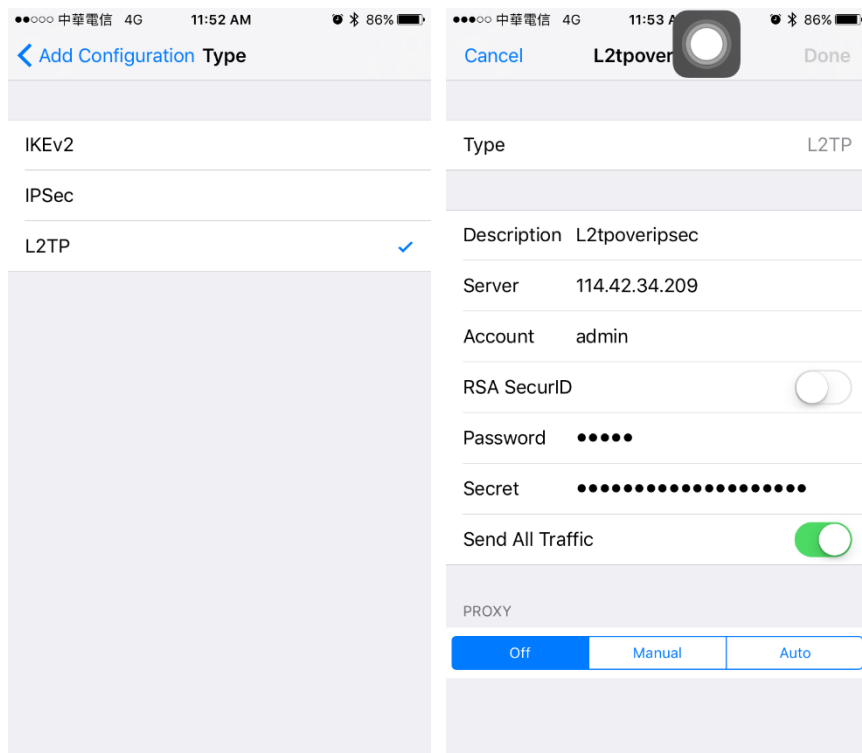
iOS Devices

1. Lunch Settings -> VPN -> Add VPN Configuration

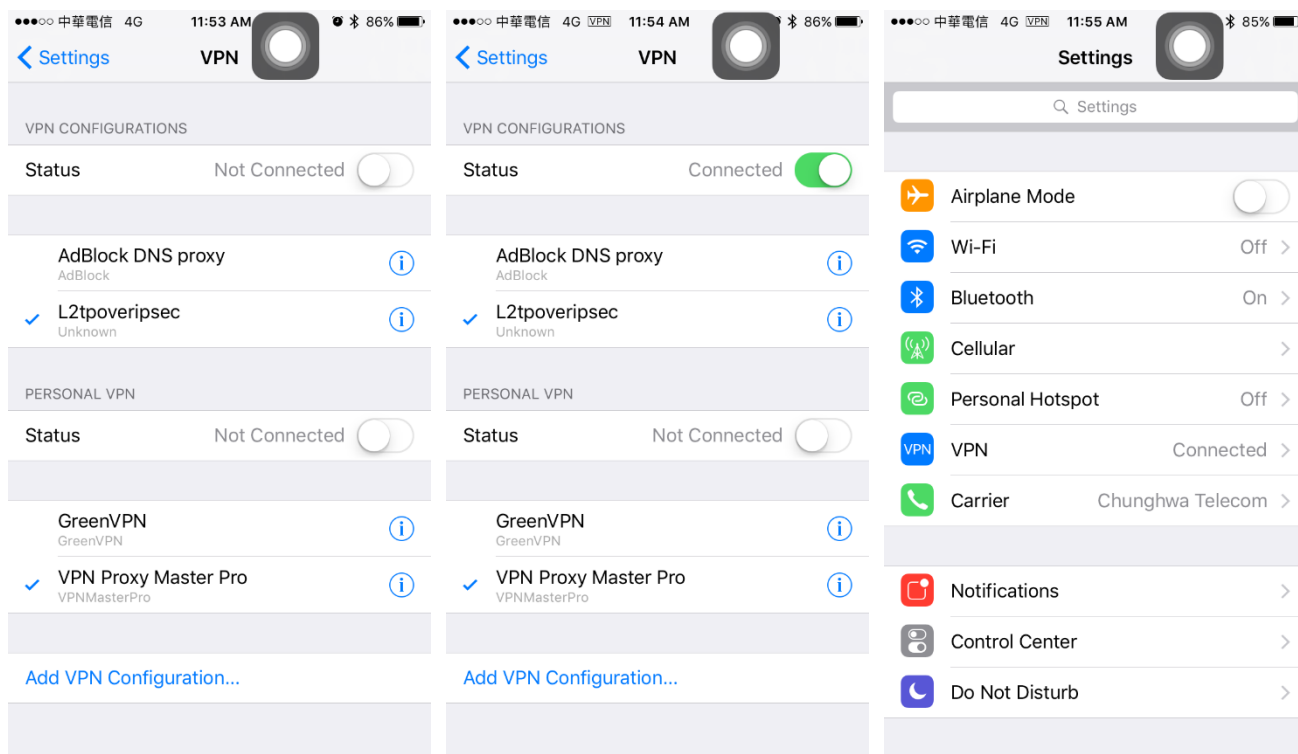


2. Type choose -> L2TP

- Input **Description**: name of this configuration, **Server**: L2TP/IPsec server router WAN IP, **Account**: L2TP/IPsec server account, **Password**: L2TP/IPsec server account password, **Secret**: L2TP/IPsec server IPsec PSK, then press Done in up-right corner.

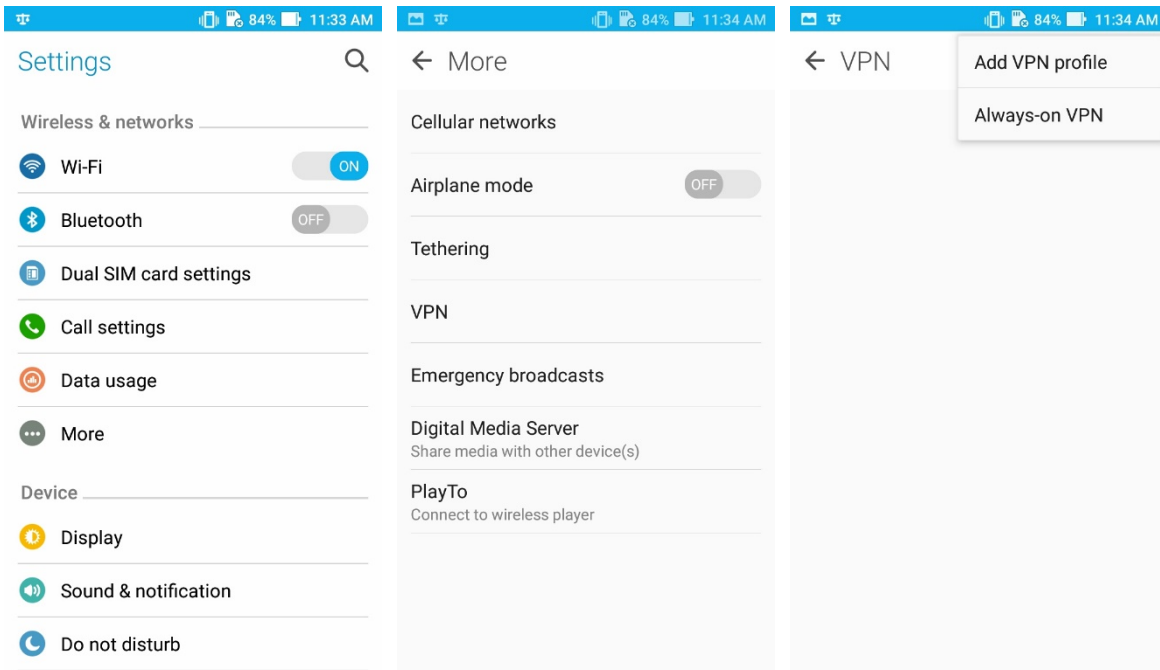


4. Slide Status button from left to right and wait device connect to server
5. After connected VPN server successfully, Status would display **Connected** and status bar would show **VPN** icon.

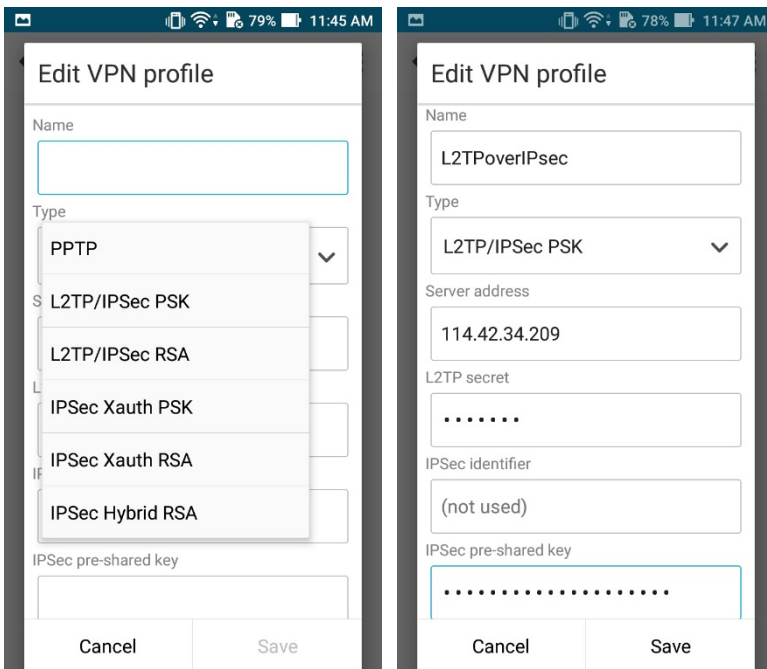


Android Devices

1. Lunch Settings -> Wireless & networks -> More¹ -> VPN -> Add VPN profile



2. Choose Type to L2TP/IPSec PSK
3. Input **Name**: name of this configuration, **Server address**: L2TP/IPsec server router WAN IP., **L2TP secret**: Secret key of Tunnel Authentication for Server router², **IPSec pre-shared key**: L2TP/IPsec server IPsec PSK, then press Save button

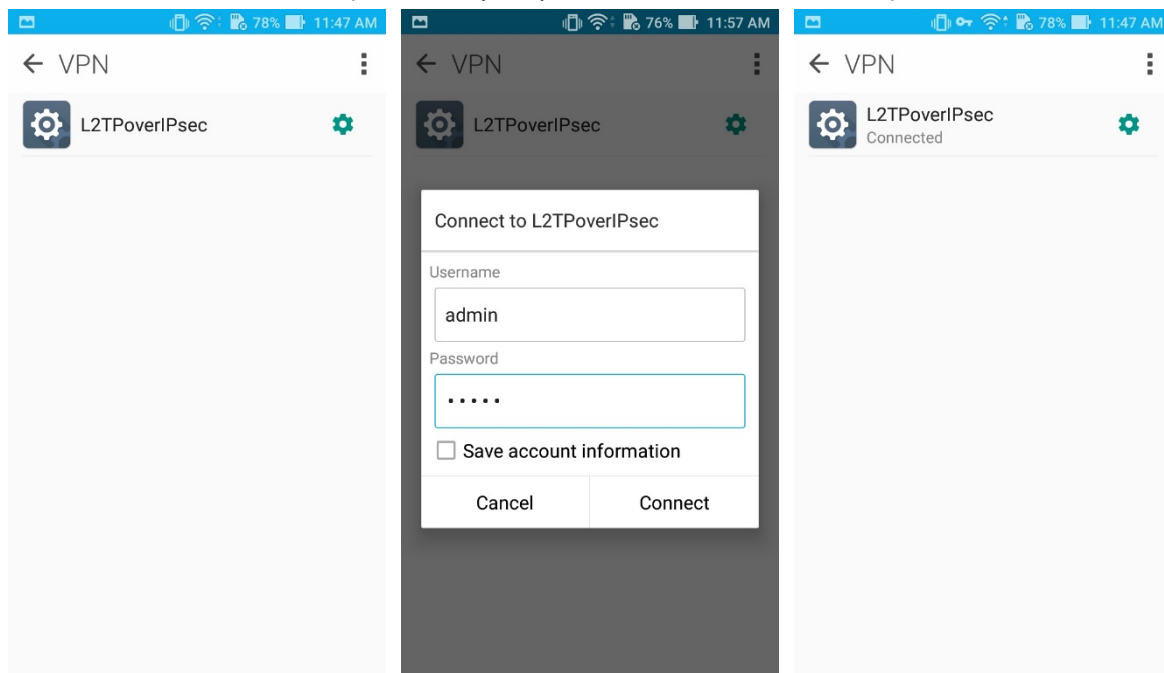


4. Press just create VPN profile, device would notice to input Username/Password, Input correct account and press Connect, wait device connect to VPN server.

¹ Some Android devices might have not More option, but Most devices VPN setting is in Wireless & networks.

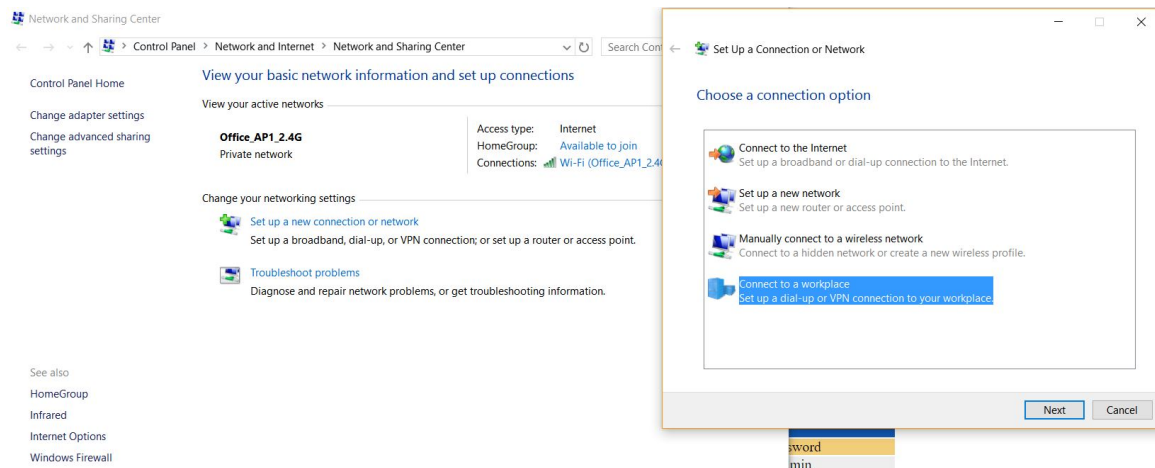
² Not necessary need, depends on Server.

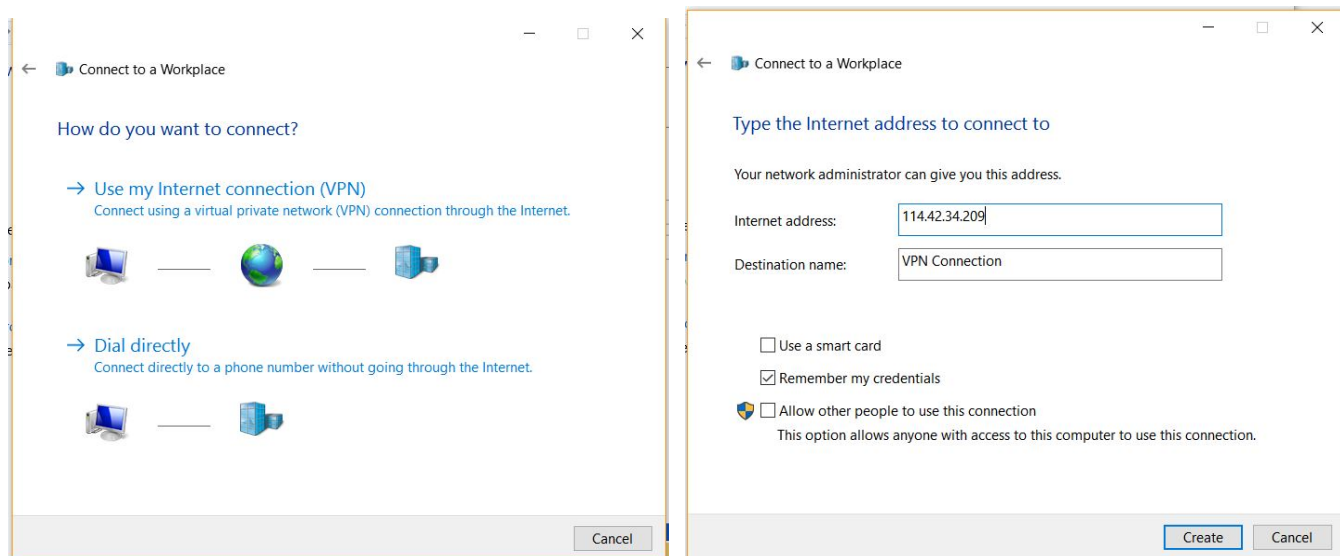
5. After connected VPN server successfully, Profile would display **Connected** and status bar would show **VPN** icon (Like as key, depends on each Android OS.).



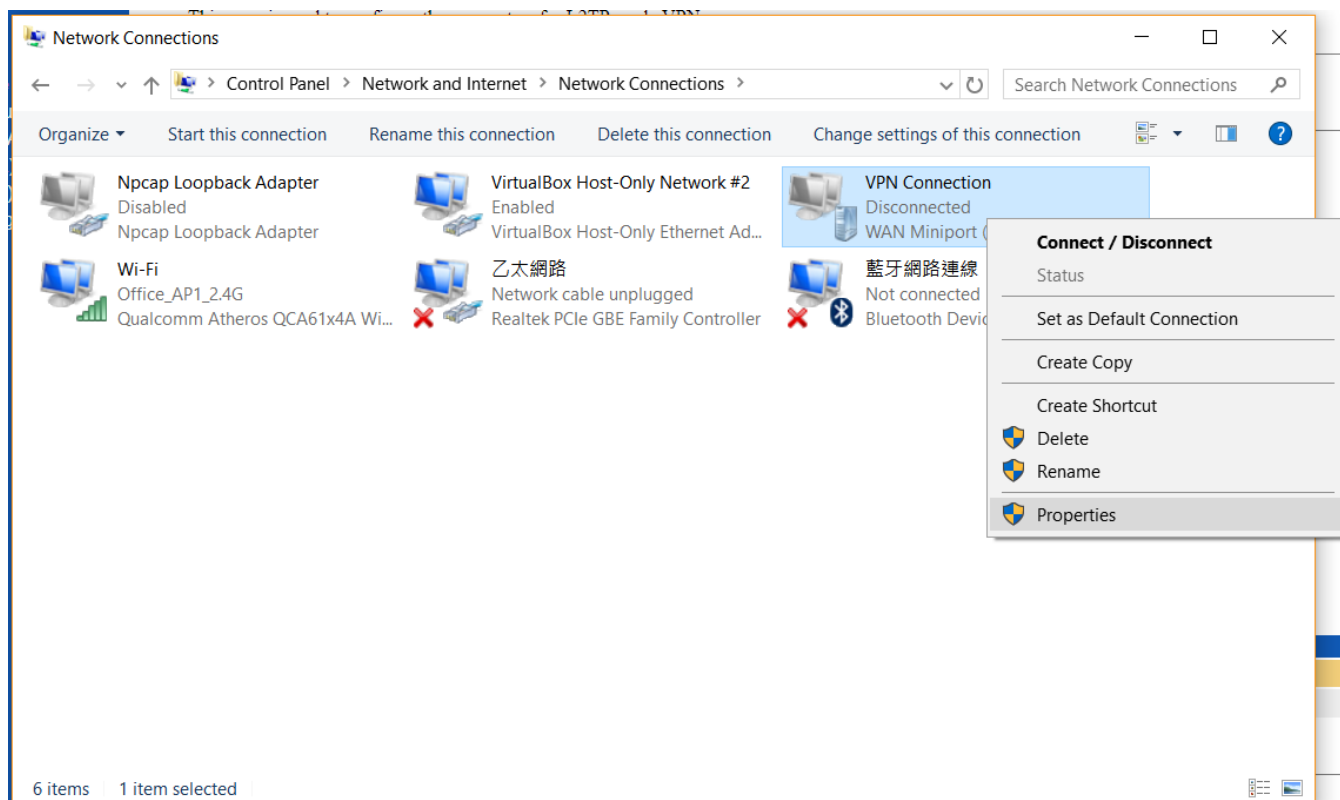
Windows 10 device

1. Lunch Control Panel -> Network and Internet -> Network and Sharing Center
2. Press Set up a new connection or network -> Connect to a workplace -> Use my Internet connection(VPN) -> Input **Internet address:** L2TP/IPsec server router WAN IP. Then Press Create.

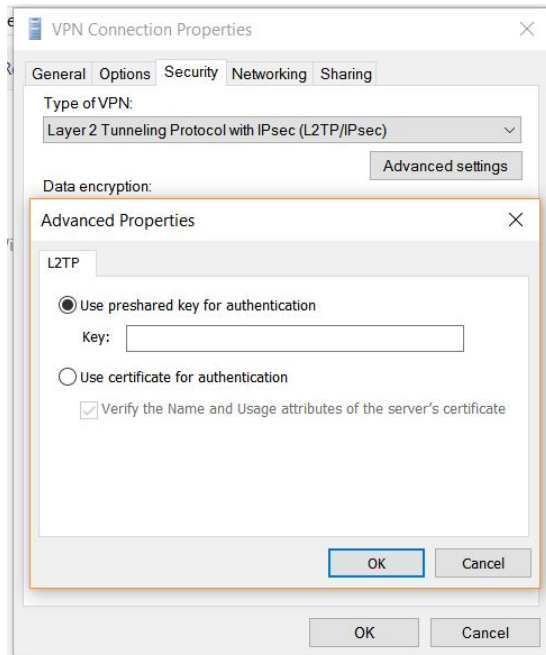
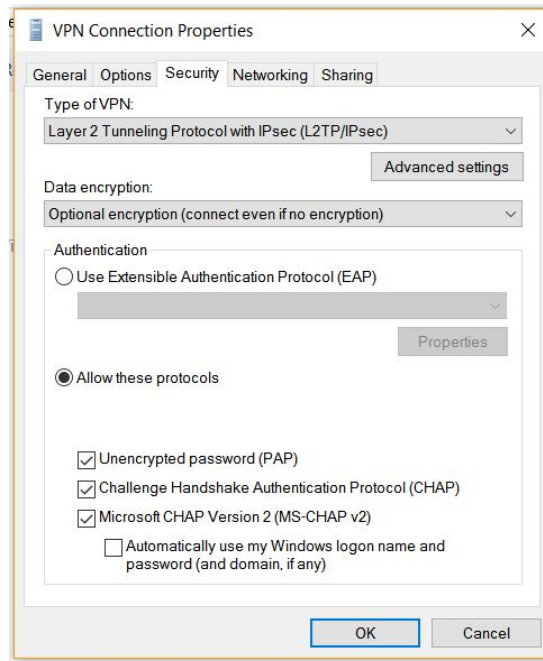
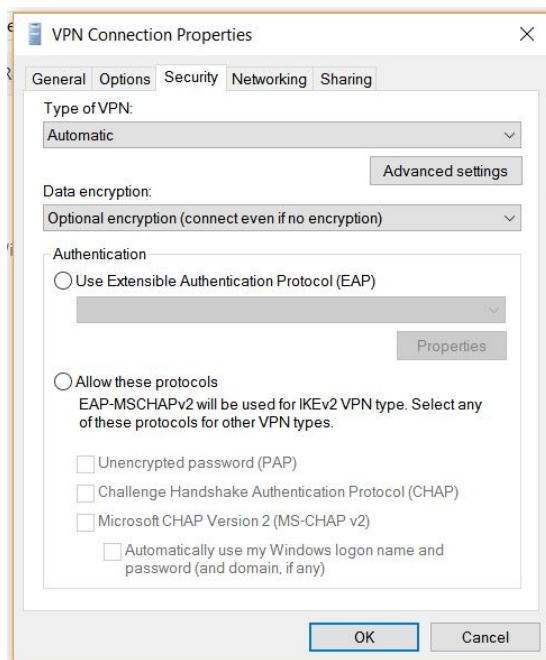




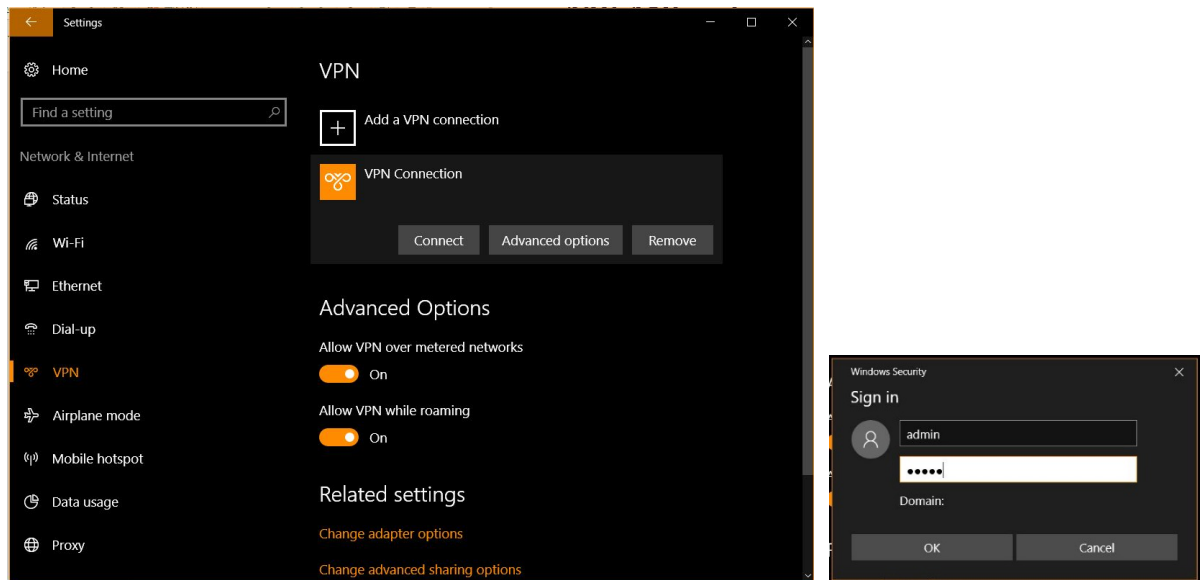
3. Go to Control Panel -> Network and Internet -> Network Connections, Find VPN Connection just create, right click on the mouse choose properties.



4. Choose Security -> **Type of VPN** change to Layer 2 Tunneling Protocol with IPsec(L2TP/IPsec)
5. Enable **Allow these protocols** and checked authentication type.
6. Press **Advanced settings** -> choose **Use preshared key for authentication** and input L2TP/IPsec server IPsec PSK key.



7. Choose Settings -> VPN, press **Connect** and input account/password, wait PC connect to VPN server.



8. After connected to VPN server, VPN Connection would show **Connected**, now you connect VPN server successfully.

