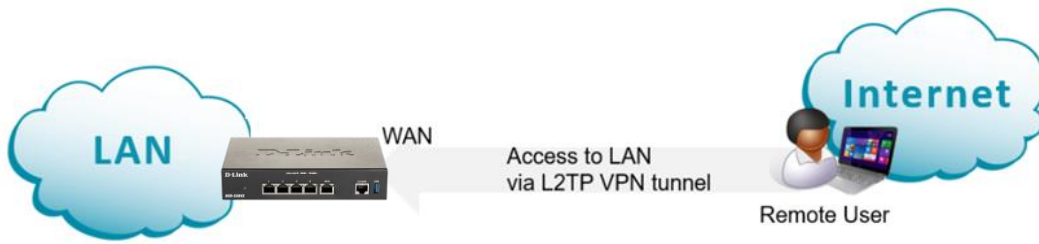


## How to setup L2TP Over IPsec VPN Service in DSR-250V2



### Configuration Steps:

- Create IPsec VPN Profile Policy.
- Enable L2TP Server.
- Add user database.
- Configure Windows as L2TP client.

Step 1. Go to *VPN > IPsec profiles*.

Create a new IPsec Policy. Use the below example as a guide.

Enter a Profile name, select the settings below and enter your desired Pre-shared Key.

The screenshot shows the D-Link web interface for the DSR-250v2 router. The left sidebar is expanded to 'VPN' > 'IPsec profiles'. The main content area is titled 'Edit new IKE' and contains the following configuration fields:

- Profile name: L2TP
- IKE version:  IKEv1  IKEv2
- IKE phase-1 settings**
- Exchange mode: Main
- Local identifier type: Local WAN IP
- Remote identifier type: Remote WAN IP
- DH group: Group 2 (1024 bit)
- Encryption: 3DES x AES-128 x
- Authentication algorithm: SHA-1 x
- SA lifetime: 28800 seconds
- Authentication method: Pre-shared Key
- Pre-shared Key: [masked]
- Dead peer detection:


- System and status
- Administration
- Authentication
- Interface
- Network
- Firewall
- Security
- VPN**
  - IPsec profiles**
  - IPsec site to site
  - IPsec client to site
  - IPsec 1 to 1 mapping
  - PPTP
  - L2TP
  - OpenVPN

Encryption 3DES x AES-128 x ▾

Authentication algorithm SHA-1 x ▾

SA lifetime  seconds

Authentication method Pre-shared Key ▾

Pre-shared Key  

Dead peer detection

Extended authentication

**IKE phase-2 settings**


Protocol selection ESP ▾

Encryption algorithm 3DES x AES-128 x ▾

Authentication algorithm SHA-1 x ▾

SA lifetime  seconds

Perfect forward secrecy

 System and status

 Administration

 Authentication

 Interface

 Network

 Firewall

 Security

 VPN

IPsec profiles

## IPsec profiles

### IPsec profiles



<input type="checkbox"/>	Name	IKE Version
<input checked="" type="checkbox"/>	L2TP	IKEV1
<input type="checkbox"/>	IKE_profile_default	IKEV1

Step 2. Go to VPN > L2TP > L2TP Server.

Enable L2TP Server.

Specify the range of IP addresses you want to assign to the connecting clients (this range should be different from your LAN subnet).

Select “default\_user” in Local user group.

Enable L2TP over IPsec.

Select the IPsec Profile you created in Step 1 from the IKE profile.

The screenshot shows the D-Link DSR-250v2 web interface. The left sidebar contains a navigation menu with the following items: System and status, Administration, Authentication, Interface, Network, Firewall, Security, and VPN. The VPN menu is expanded, showing sub-items: IPsec profiles, IPsec site to site, IPsec client to site, IPsec 1 to 1 mapping, PPTP, L2TP, OpenVPN, and GRE. The main content area is titled "L2TP" and has two tabs: "L2TP server" (selected) and "L2TP client". The configuration options for the L2TP server are as follows:

- Enable L2TP server:
- Routing mode:  NAT  Route
- Starting IP address: 192.168.33.10
- Ending IP address: 192.168.33.50
- Authentication server: Local user database
- Local user group: default\_user
- Authentication protocol: PAP x, CHAP x, MSCHAP x, MSCHAPV2 x
- Enable secret key:
- Idle timeout: 450 seconds
- L2TP over IPsec:
- IKE profile: L2TP

Step 3. Go to *Authentication > User Database > User account > Local users*.

**User account** External auth server

**Local group**

Group Name	Member	Associated Services
default_user	2	OpenVPN,L2TP,PPTP
ADMIN	1	
GUEST	1	

Total:3 iter

**Local users**

User name	Groups	Description
admin	default_user	DEFAULT NETWORK

Add new username, select “default\_user” from the Group and enter passwords.

**Add local user** Cancel Apply

User name: test

Group: default\_user

New password: 8-64 Characters

Confirm password: 8-64 Characters

Description (Optional): 1-64 Characters

Email (Optional): adc@example

Mobile (Optional): eg.0987654321

**User account** External auth server

**Local group**

Group Name	Member	Associated Services	Description
default_user	3	PPTP,L2TP	DEFAULT NETWORK GROUP
ADMIN	1		ADMINISTRATION GROUP
GUEST	1		GUEST GROUP

Total:3 iter

**Local users**

User name	Groups	Description
admin	default_user	DEFAULT NETWORK USER
user	default_user	
test	default_user	
admin	ADMIN	ADMINISTRATION ACCOUNT
guest	GUEST	GUEST ACCOUNT

- System and status
- Administration
- Authentication**
  - User authentication
  - User database**
  - Captive portal
- Interface
- Network
- Firewall

## User database

User account External auth server

### Local group

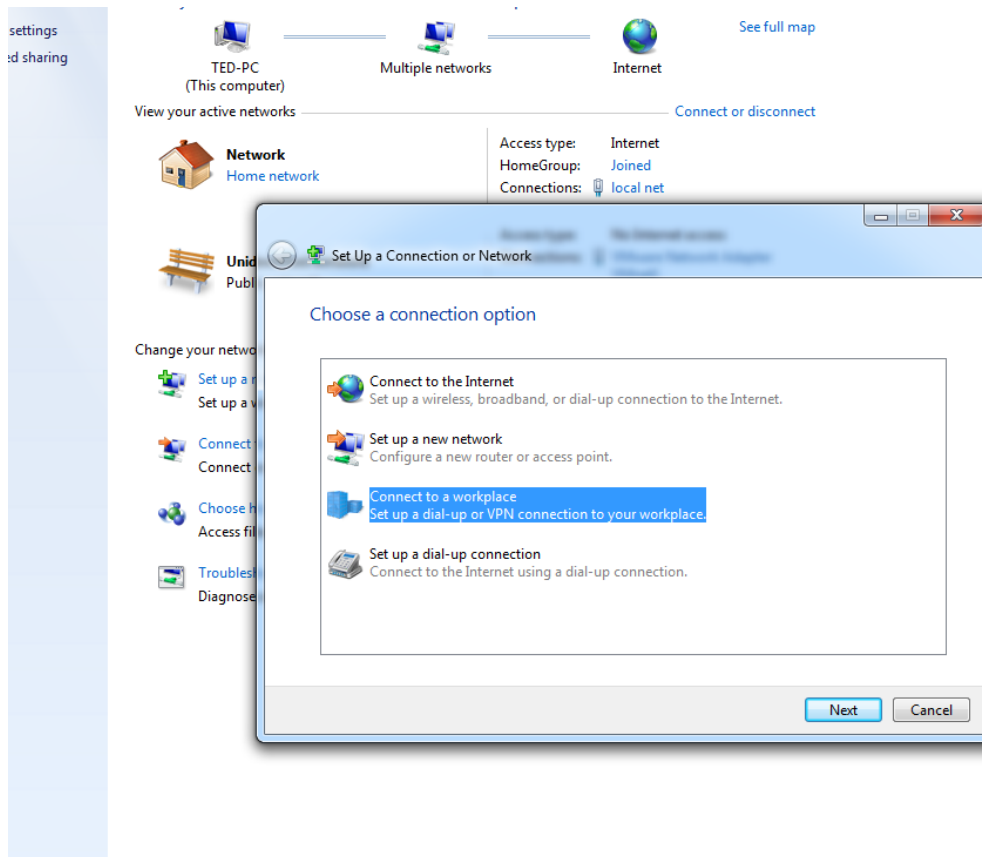
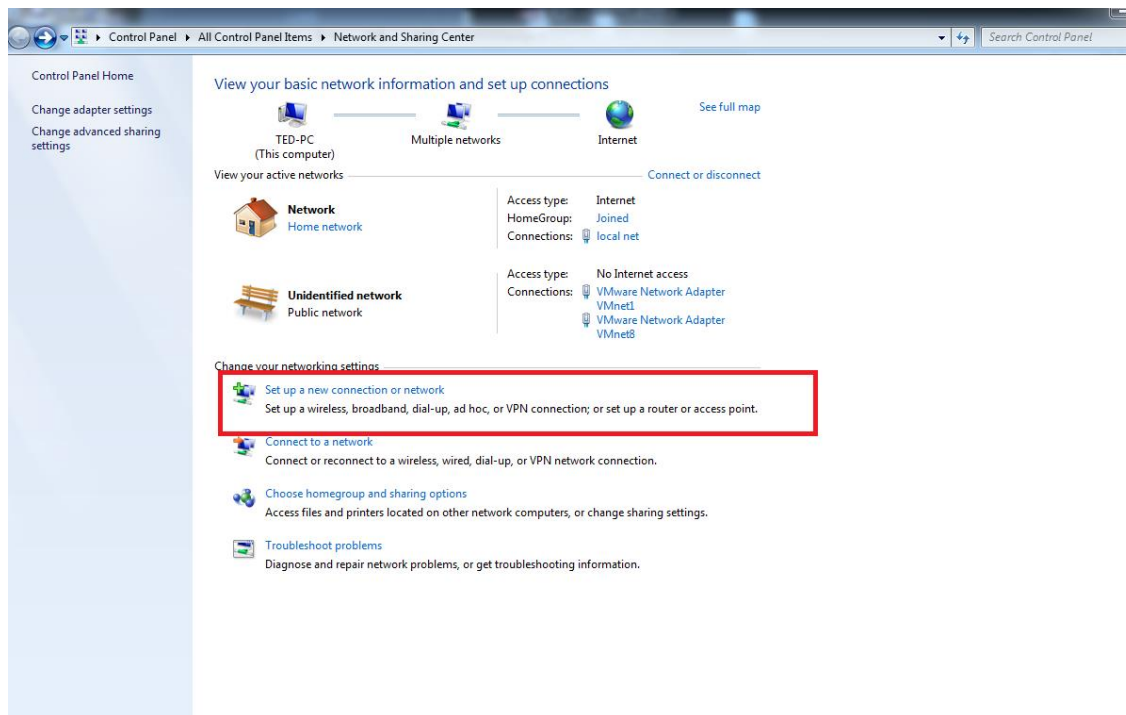


You have selected 1 items for delete or edit

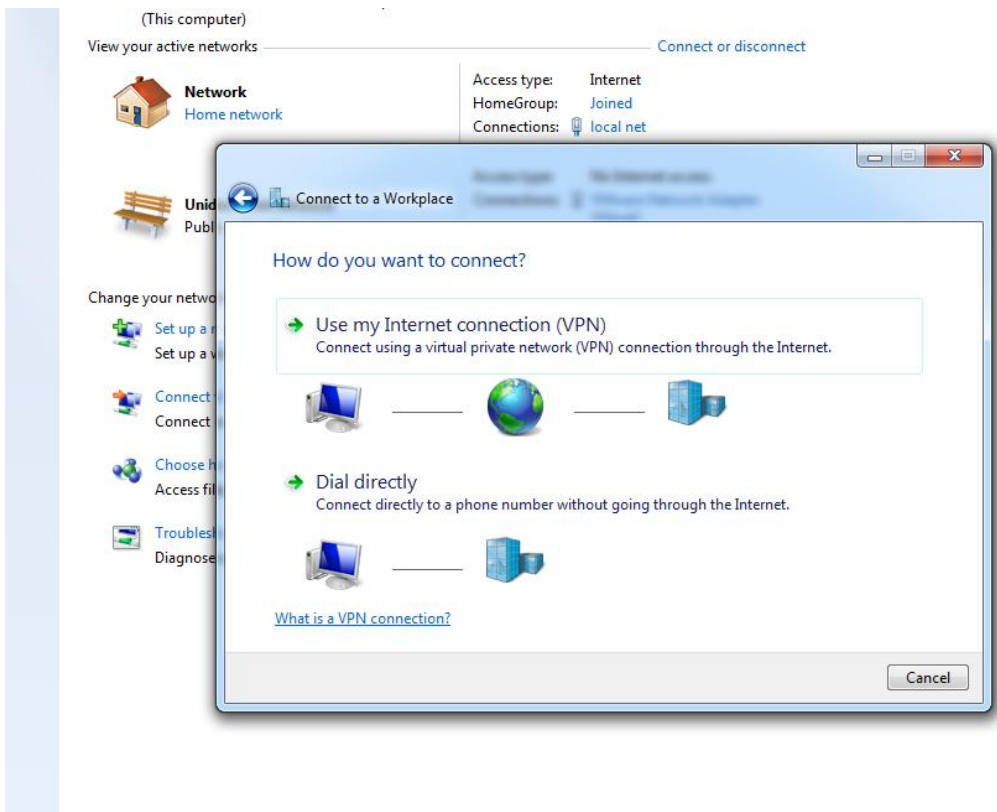
<input type="checkbox"/>	Group Name	Member	Associated Services	Description
<input checked="" type="checkbox"/>	default_user	3	PPTP,L2TP	DEFAULT NETWORK GROUP
<input type="checkbox"/>	ADMIN	1		ADMINISTRATION GROUP
<input type="checkbox"/>	GUEST	1		GUEST GROUP

Total:3 item

## Step 4. Configure Windows as a L2TP client.

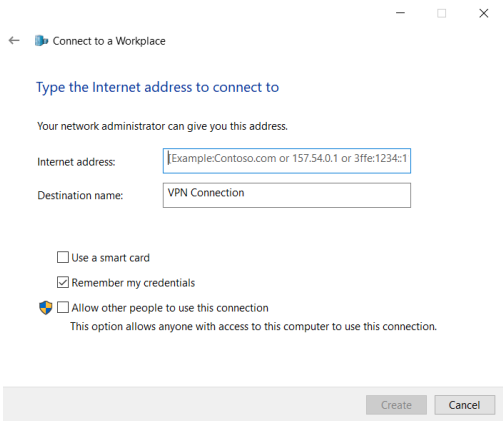


Select "Use my Internet connection (VPN)".

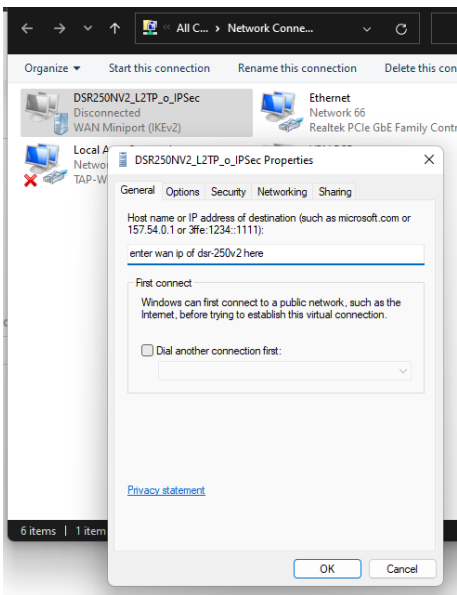




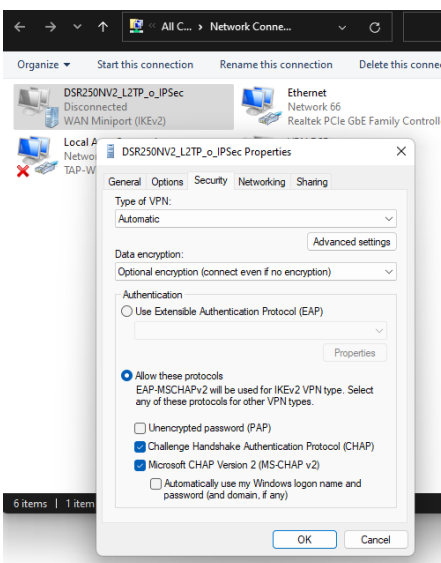
Enter the DSR-250V2 WAN IP address and Destination name below.



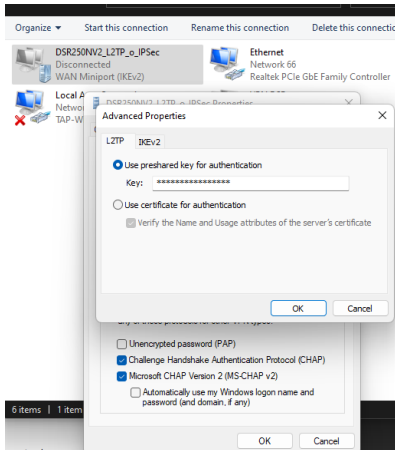
Right-click on the VPN icon (in this example DSR250NV2\_L2TP\_o\_IPSec) and click on Properties.



Go to Security tab and select the following settings below.



Under Security tab, click on Advanced settings and enter the same Pre-shared key you type in Step 1 then press OK to exit.



Select the L2TP VPN you created from the Connection window to connect and enter the username and password.

