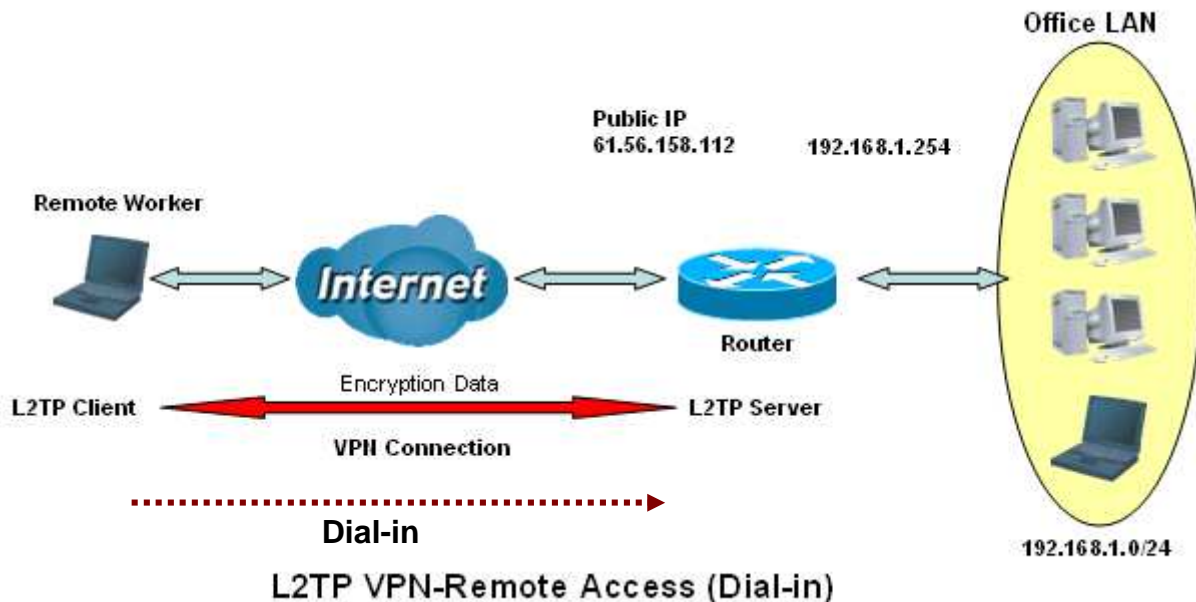# VPN L2TP Application

Installation Guide

Configuring a Remote Access L2TP VPN Dial-in Connection

A remote worker establishes a L2TP VPN connection with the head office using Microsoft's VPN Adapter (included with Windows XP/2000/ME, etc.). The router is installed in the head office, connected to a couple of PCs and Servers.

L2TP VPN-Remote Access (Dial-in)

Configuring L2TP VPN in the Office

The input IP address 192.168.1.200 will be assigned to the remote worker. Please make sure this IP is not used in the Office LAN.

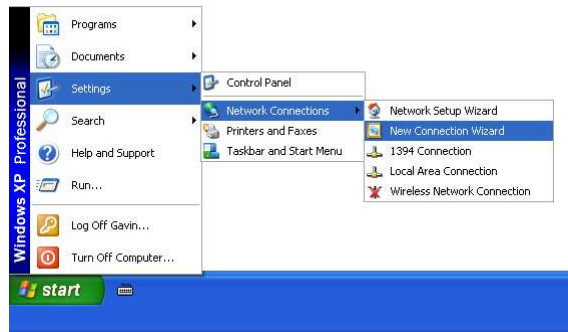| Item	Function		Description
1	Connection Name	VPN_L2TP	Given a name of L2TP connection
2	Dial in		Check Dial in
	Private IP Address Assigned to Dialing User	192.168.1.200	An assigned IP address for the remote worker
3	Username	username	Input username & password to authenticate remote worker
	Password	123456	
4	Auth.Type	Chap(Auto)	Keep as default value in most of the cases.
5	Idle Timeout	0	The connection will be disconnected when there Is no traffic in a predefined period of time. Idle time **0** means the connection is always-on.
6	IPSec		Enable for enhancing your L2TP VPN security.
	Authentication	MD5	
	Encryption	3DES	Both sites should use the same value.
	Perfect Forward Secrecy	None	
	Pre-shared Key	12345678	

Configuring Remote Worker for Dial-out to the Router

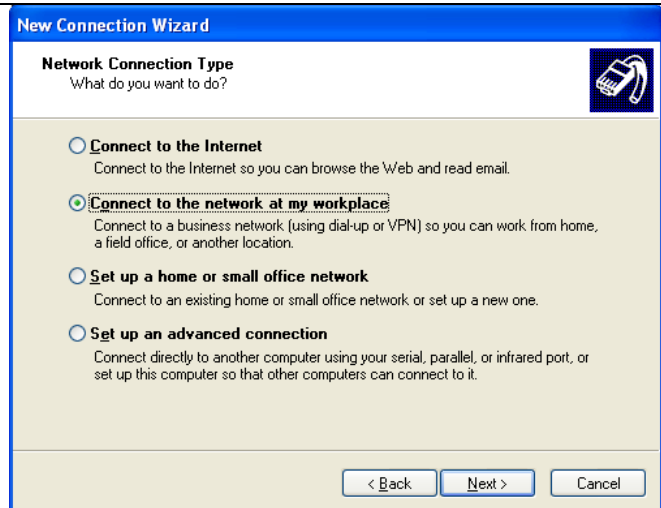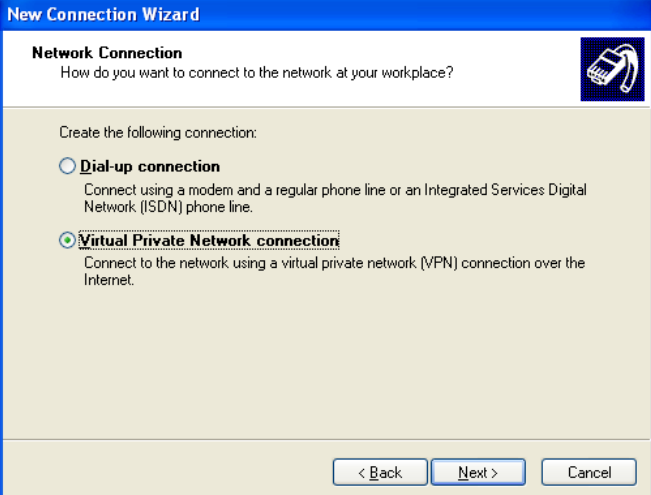|	
Step 1 Select "**New Connection Wizard**" to create a VPN-L2TP dial out service.	
Step 2 Click **Next >** to the next step.	
Step 3 Check "**Connect to the network at my workplace**" radio button. Click **Next >** to the next step.	

# Step 4 Check "**Virtual Private Network connection**" radio button. Click ⎹ **Next >** ⎸ to the next step.	**New Connection Wizard** **Network Connection** How do you want to connect to the network at your workplace? Create the following connection: ○ **Dial-up connection** Connect using a modem and a regular phone line or an Integrated Services Digital Network (ISDN) phone line. ⊙ **Virtual Private Network connection** Connect to the network using a virtual private network (VPN) connection over the Internet. [< Back] [Next >] [Cancel]
# Step 5 Give a name to the L2TP connection. Click ⎹ **Next >** ⎸ to the next step.	**New Connection Wizard** **Connection Name** Specify a name for this connection to your workplace. Type a name for this connection in the following box. Company Name VPN L2TP For example, you could type the name of your workplace or the name of a server you will connect to. [< Back] [Next >] [Cancel]
# Step 6 Input VPN-L2TP Server's IP address. You can use Host name, only if the DDNS function is enabled in the Router. Refer to the user manual for more detail. Click ⎹ **Next >** ⎸ to the next step.	**New Connection Wizard** **VPN Server Selection** What is the name or address of the VPN server? Type the host name or Internet Protocol (IP) address of the computer to which you are connecting. Host name or IP address (for example, microsoft.com or 157.54.0.1): 61.56.158.112 [< Back] [Next >] [Cancel]
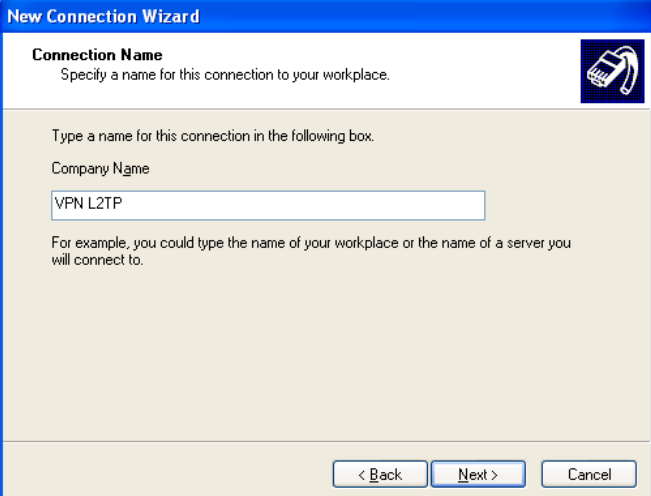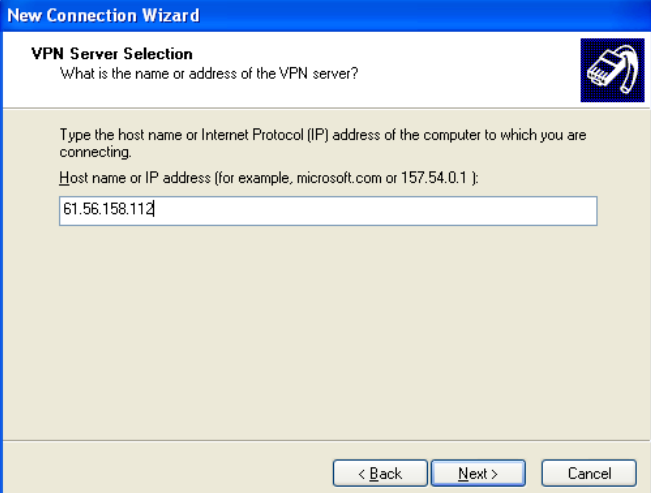
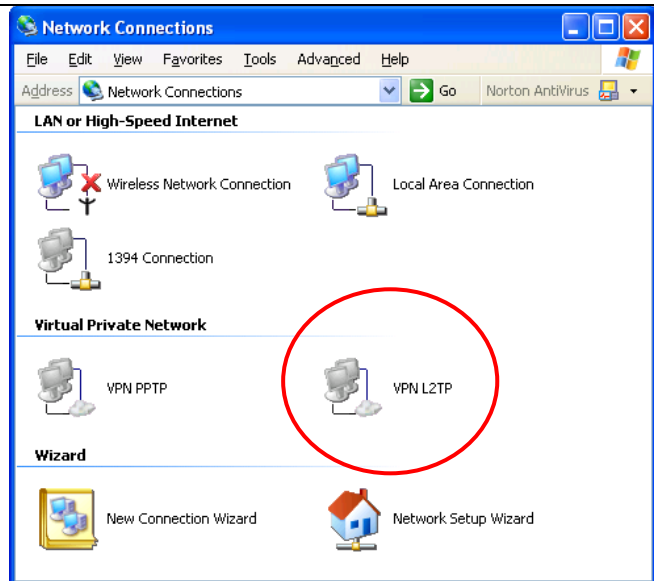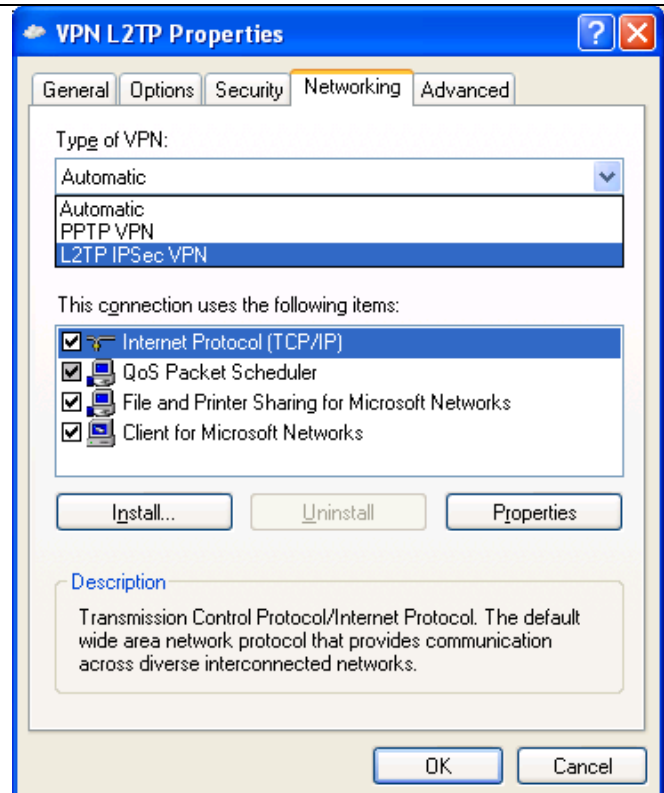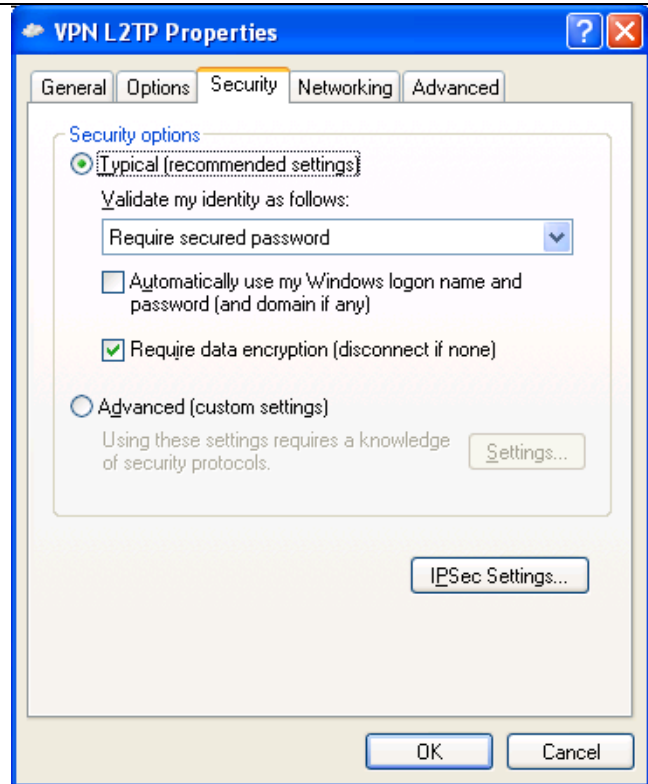|	
Step 7 Click [**Finish**] to the next step.	
Step 8 Open **Network Connections** and double click on the **VPN L2TP** icon.	
Step 9 Select "**Networking**" tab, and change "**Type of VPN**" to "**L2TP IPSec VPN**".	

Step 10

Select "**Security**" tab.

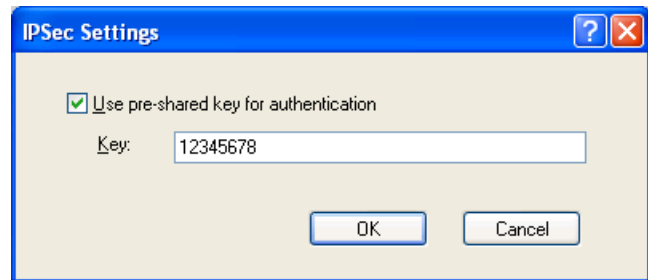Click **IPSec Settings…** to the next step.
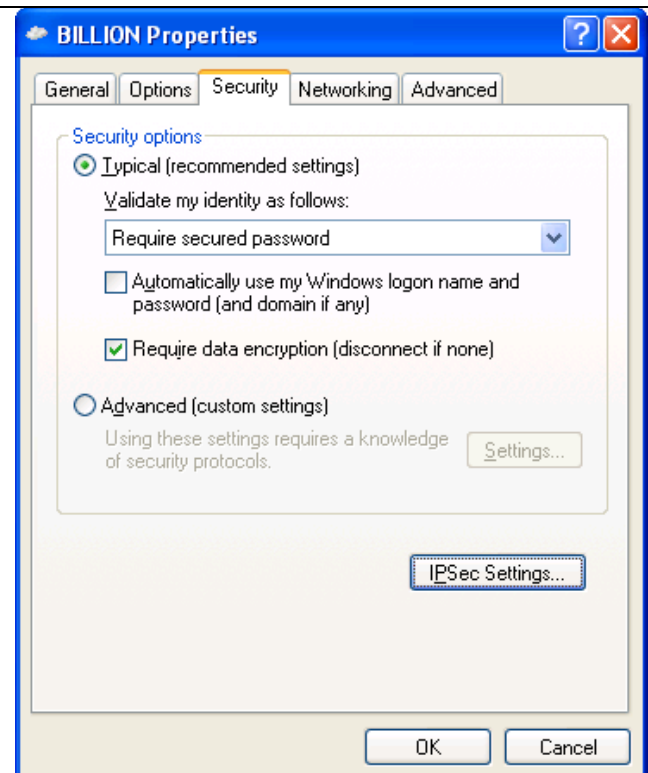
Step 11

Input pre-shared key.
Note: This pre-shared key must be identical as set up in the Router.

Click **OK** to the next step.

Step 12

Click **OK** to continue.

Step 13

User name and **Password** should be identical as set up in Router. (See Item 3)

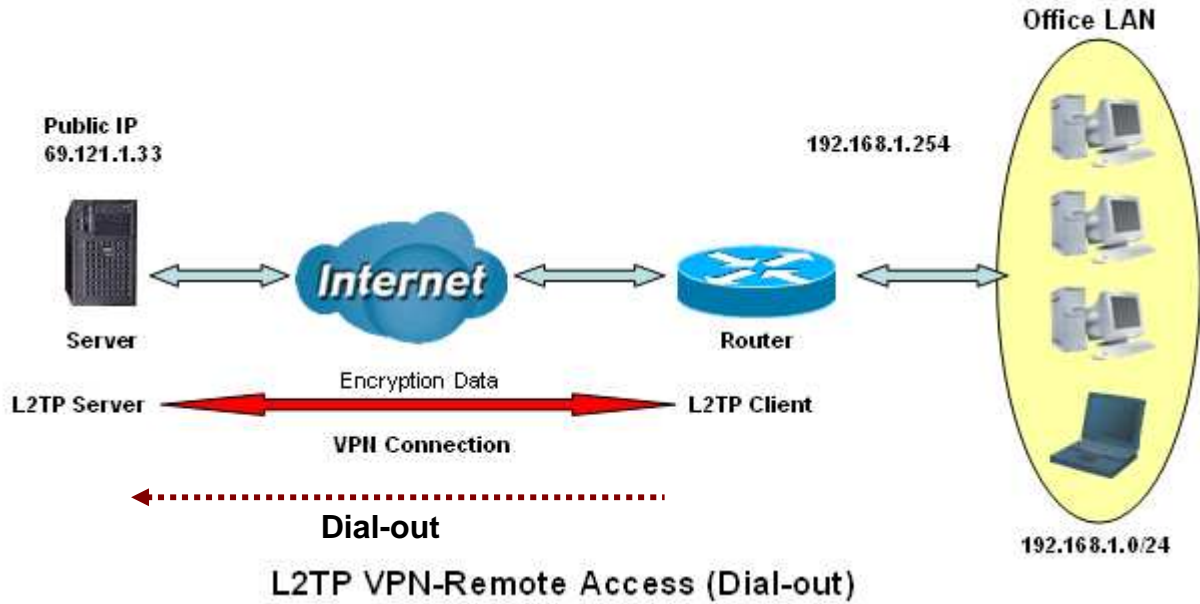Click [**Connect**] to establish a connection to your VPN-L2TP Server.

Completed!

Configuring a Remote Access L2TP VPN Dial-out Connection

A company's office establishes a L2TP VPN connection with a file server located at a separate location. The router is installed in the office, connected to a couple of PCs and Servers.

L2TP VPN-Remote Access (Dial-out)

Configuring the L2TP VPN in the Office

L2TP

Remote Access Connection

Connection Name	VPN_L2TP	①		
Type	● Dial out,	Server IP Address (or Hostname)	69.121.1.33	②
	○ Dial in,	Private IP Address Assigned to Dialin User		
Username	username	③		
Password	••••••			
Auth. Type	Chap(Auto) ▾	④		
Idle Timeout	0　 minutes	⑤		
IPSec	☑ Enable			
Authentication	MD5 ▾	⑥		
Encryption	3DES ▾			
Perfect Forward Secrecy	None ▾			
Pre-shared Key	12345678			

[Apply]

Item	Function		Description
1	Connection Name	VPN_L2TP	Given name of L2TP connection
2	Dial out		Check Dial out
	Server IP Address (or Hostname)	69.121.1.33	An Dialed server IP
3	Username	username	A given username & password
	Password	123456	
4	Auth.Type	Chap(Auto)	Keep as default value in most of the cases.
5	Idle Timeout	0	The connection will be disconnected when there Is no traffic in a predefined period of time. Idle time **0** means the connection is always-on.
6	IPSec		Enable for enhancing your L2TP VPN security.
	Authentication	MD5	Both sites should use the same value.
	Encryption	3DES	
	Perfect Forward Secrecy	None	
	Pre-shared Key	12345678	

Configuring the your Router to Dial-in to the Server

Currently, Microsoft Windows operation system does not support L2TP incoming service. Additional software may be required to set up your L2TP incoming service.

Configuring a LAN-to-LAN L2TP VPN Connection

The branch office establishes a L2TP VPN tunnel with head office to connect two private networks over the Internet. The routers are installed in the head office and branch office accordingly.
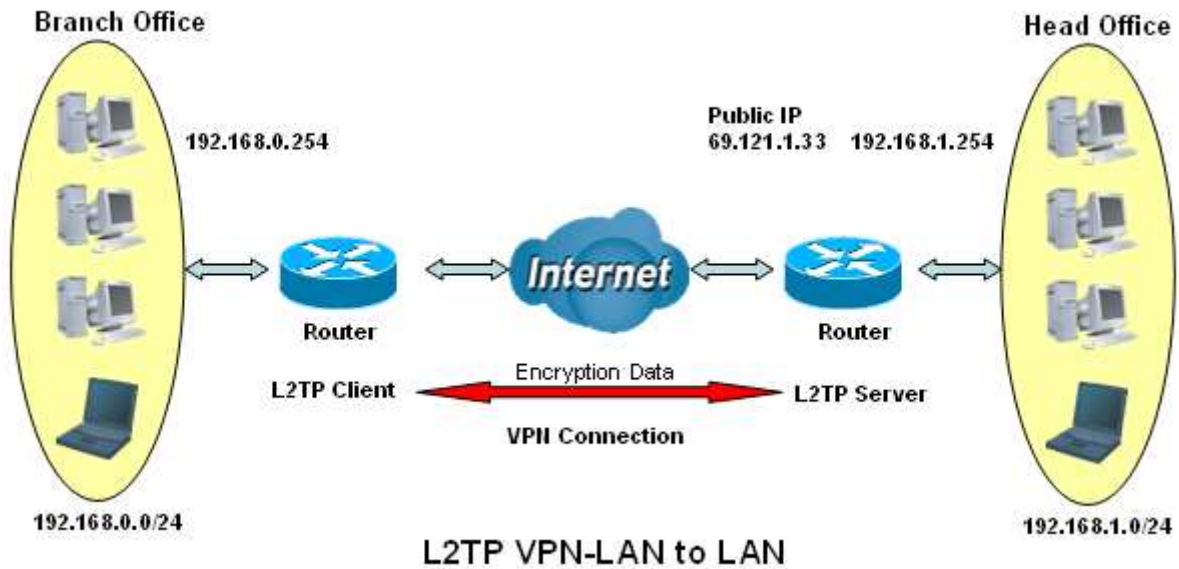
L2TP VPN-LAN to LAN

Both office LAN networks **MUST in different subnet** with LAN to LAN application.

Functions of **Pre-shared Key, VPN Connection Type and Security Algorithm MUST BE** identically set up on both sides.

Attention

Configuring L2TP VPN in the Head Office

The IP address 192.168.1.200 will be assigned to the router located in the branch office. Please make sure this IP is not used in the head office LAN.

Item	Function		Description
1	Connection Name	HeadOffice	Given a name of L2TP connection
2	Dial in		Check Dial in
	Private IP Address Assigned to Dialing User	192.168.1.200	IP address assigned to branch office network
3	Peer Network IP	192.168.0.0	Branch office network
	Netmask	255.255.255.0	
4	Username	username	Input username & password to authenticate branch office network
	Password	123456	
5	Auth.Type	Chap(Auto)	Keep as default value in most of the cases.
6	Idle Timeout	0	The connection will be disconnected when there Is no traffic in a predefined period of time. Idle time **0** means the connection is always-on.
7	IPSec		Enable for enhancing your L2TP VPN security.
	Authentication	MD5	
	Encryption	3DES	
	Perfect Forward Secrecy	None	Both sites should use the same value.
	Pre-shared Key	12345678	

Configuring L2TP VPN in the Branch Office

The IP address 69.1.121.30 is the **Public IP** address of the router located in head office. If you registered the DDNS (please refer to the **DDNS** section of this manual), you can also use the domain name instead of the IP address to reach the router.

Item	Function		Description
1	Connection Name	BranchOffice	Given a name of L2TP connection
2	Dial out		Check Dial out
	Server IP Address (or Hostname)	69.121.1.33	IP address of the head office router (in WAN side)
3	Peer Network IP	192.168.1.0	Head office network
	Netmask	255.255.255.0	
4	Username	username	Input username & password to authenticate branch office network
	Password	123456	
5	Auth.Type	Chap(Auto)	Keep as default value in most of the cases.
6	Idle Timeout	0	The connection will be disconnected when there Is no traffic in a predefined period of time. Idle time **0** means the connection is always-on.
7	IPSec		Enable for enhancing your L2TP VPN security.
	Authentication	MD5	
	Encryption	3DES	
	Perfect Forward Secrecy	None	Both sites should use the same value.
	Pre-shared Key	12345678	