



Telkom VPN-Lite router setup  
User Manual

D-Link DSL-2750U

Version AF\_1.01\_V01

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## Introduction

Welcome to the Telkom VPN-Lite router setup user manual. This manual will provide information on how to setup the Telkom VPN-Lite service on your D-Link DSL-2750U modem using the Installation Wizard and the router's graphical user interface (GUI)

## Before you start

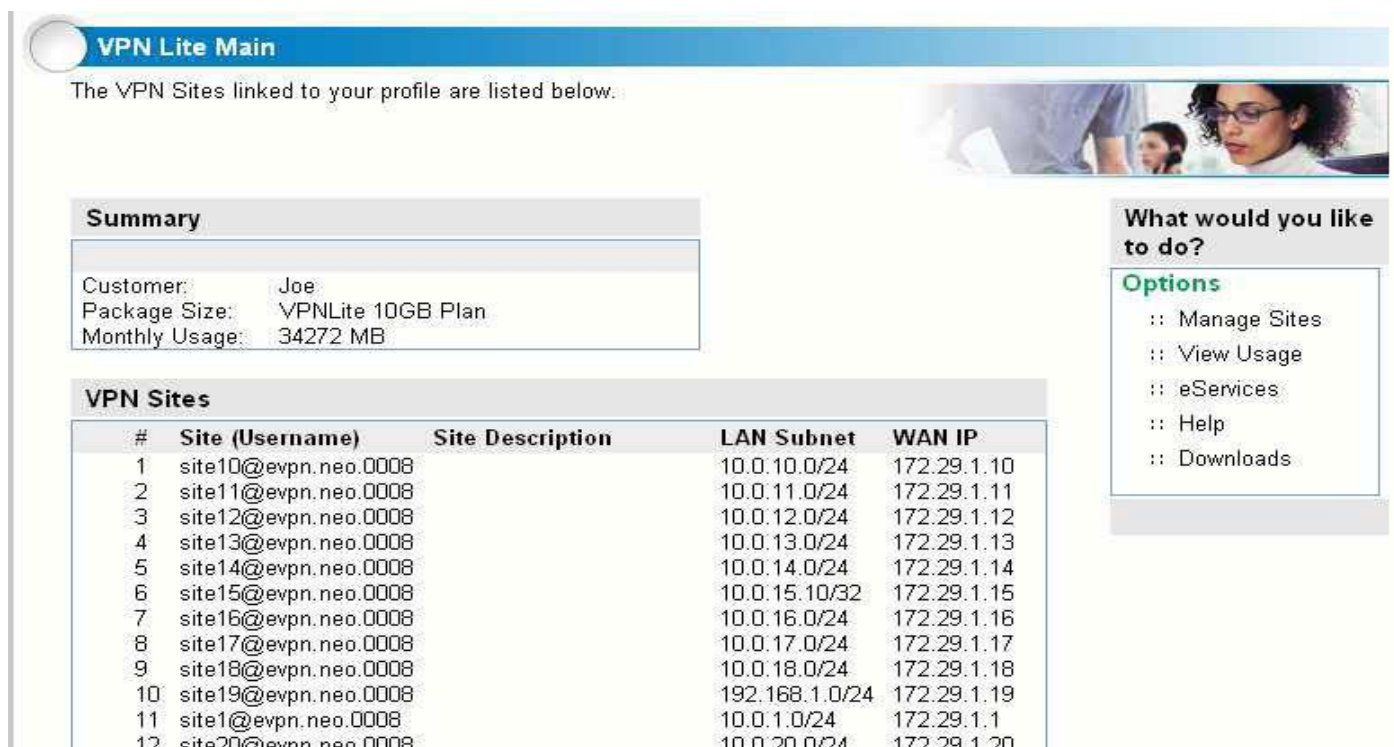
### Important Notice

This manual assumes that the D-Link DSL-2750U is in its factory default state. Thus: LAN IP = 10.0.0.2  
It is recommended that the Installation Wizard is used to setup VPN-Lite on your D-Link DSL-2750U. The routers graphical user interface (GUI) or manual setup method is to be used by experienced users only. Please ensure that your PC is set to obtain an IP address automatically from the router's DHCP server.

## Register VPN-Lite service.

To enable you to configure the Telkom VPN-Lite service on your D-Link DSL-2750U router you first need to register for the Telkom VPN-Lite service on the Telkom website ([www.telkom.co.za](http://www.telkom.co.za)).

On the VPN-Lite registration site you will be able to configure and manage your VPN-Lite sites as shown in the image below.



**VPN Lite Main**

The VPN Sites linked to your profile are listed below.

**Summary**

Customer:	Joe
Package Size:	VPNLite 10GB Plan
Monthly Usage:	34272 MB

**What would you like to do?**

**Options**

- :: Manage Sites
- :: View Usage
- :: eServices
- :: Help
- :: Downloads

**VPN Sites**

#	Site (Username)	Site Description	LAN Subnet	WAN IP
1	site10@evpn.neo.0008		10.0.10.0/24	172.29.1.10
2	site11@evpn.neo.0008		10.0.11.0/24	172.29.1.11
3	site12@evpn.neo.0008		10.0.12.0/24	172.29.1.12
4	site13@evpn.neo.0008		10.0.13.0/24	172.29.1.13
5	site14@evpn.neo.0008		10.0.14.0/24	172.29.1.14
6	site15@evpn.neo.0008		10.0.15.10/32	172.29.1.15
7	site16@evpn.neo.0008		10.0.16.0/24	172.29.1.16
8	site17@evpn.neo.0008		10.0.17.0/24	172.29.1.17
9	site18@evpn.neo.0008		10.0.18.0/24	172.29.1.18
10	site19@evpn.neo.0008		192.168.1.0/24	172.29.1.19
11	site1@evpn.neo.0008		10.0.1.0/24	172.29.1.1
12	site20@evpn.neo.0008		10.0.20.0/24	172.29.1.20

Here you will retrieve vital information like site Usernames, Password and LAN Subnets to configure the VPN-Lite sites. In the below setup sections you will be required to enter these values.

Please ensure that you have all the correct information for each site before you start any of the setup sections mentioned in this document. Below is an image to show you what information is required to enable you to setup VPNLite. You can find this screen in the Manage Sites section.

**Modify a Site**

**Site (Username)**  
Site15@vpn1.net:0001

**Site Description \***

**LAN Subnet - Format: IP Address/Subnet Mask ( 8 - 32 ) \***  
10.0.16.0/24

**WAN IP - Format: IP Address \***  
172.29.1.16

**Password**

**Confirm Password**

\* Indicates mandatory fields

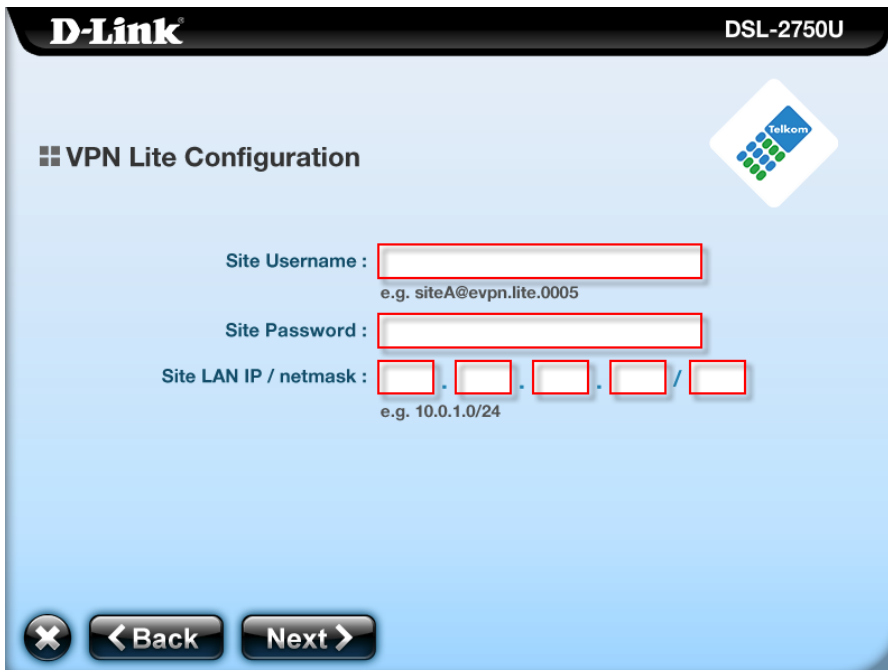
# VPN-Lite Setup Using the bundled Installation Wizard on the CD

Before you start with this section, please make sure you have registered on the Telkom VPN-Lite service website and that you have received your VPN-Lite account and IP information for the local site (*this will be one of your branches or offices where you will install the VPN-Lite service*). Please refer to page 5 for further information

The Installation Wizard can be found on the bundled CD. When opening the Wizard, click on Services Setup and then on VPN-Lite




By using the information retrieved from the Telkom VPN-Lite setup website (see page 5) enter your site username, site password and site LAN IP range using the IP slash notation as it appears on the Telkom VPN-Lite website. When done, click next.




The screenshot shows the 'VPN Lite Configuration' page for a D-Link DSL-2750U router. The page has a light blue background and a black header with the 'D-Link' logo on the left and 'DSL-2750U' on the right. A Telkom logo is in the top right corner. The main content area contains three input fields: 'Site Username' with a text box and the example 'e.g. siteA@evpn.lite.0005', 'Site Password' with a text box, and 'Site LAN IP / netmask' with five individual input boxes for the IP address and a final box for the netmask, with the example 'e.g. 10.0.1.0/24'. At the bottom, there are three buttons: a close button (X), a 'Back' button with a left arrow, and a 'Next' button with a right arrow.

Review your settings and click on **Submit** when you are happy with your settings



**D-Link** DSL-2750U



**VPN Lite Site Confirmation**  
Your router will be setup with the following details

Site Username : **site28@evpn.lite.0005**

Site Password : **12345678**



Site LAN IP / netmask : **10.0.28.2/24**

New Router IP : **10.0.28.2**

**Submit**

Click "Submit" to complete your VPN Lite setup

After selecting "Submit", you will need to use your New Router IP address to connect to your router. (Please wait until the router has reset and reconnected)



When the router has successfully submitted the settings you will see this screen. Wait for the router to reboot with the new settings. Please log in with your new IP address if you have changed it from the default value (10.0.0.2)



## VPN-Lite Setup using router's graphical user interface (GUI)

This section will guide you through the relative steps to setup you VPN-Lite service using the routers graphical user interface browser.

### Connection to the router using your web browser

Open a web browser like Internet Explorer or Mozilla Firefox. In the internet address bar type in `http://10.0.0.2` and press enter. You will be prompted to supply a password. Enter **admin** as the password (default **admin**) and press login

Product Page: DSL-2750U

Firmware Version: AF\_1.57\_T10

**D-Link**

**LOGIN**

Welcome to DSL-2750U Web Management

Username : admin

Password :

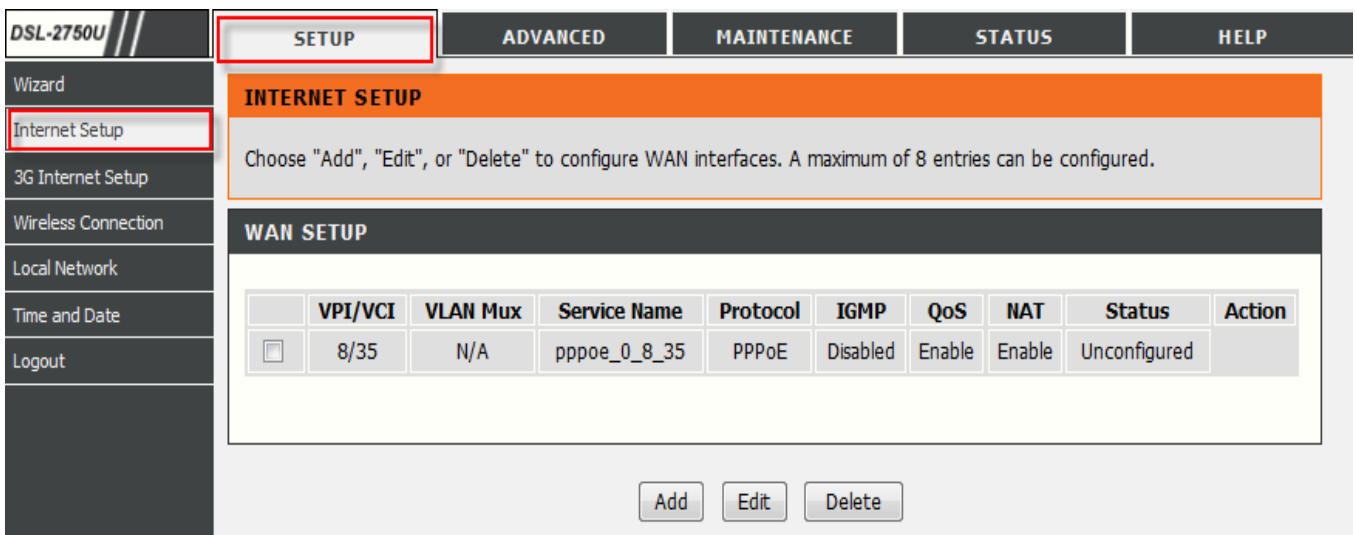
Remember my login info.

Login

**WIRELESS**

## Setup your VPN-Lite

After the router's graphical user interface was successfully loaded in your web browser, firstly click on Setup on the top menu and then select Internet Setup on the left menu. The following screen will appear.



The screenshot displays the router's web interface. At the top, there is a navigation bar with tabs for 'SETUP', 'ADVANCED', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'SETUP' tab is active. On the left side, there is a vertical menu with options: 'Wizard', 'Internet Setup', '3G Internet Setup', 'Wireless Connection', 'Local Network', 'Time and Date', and 'Logout'. The 'Internet Setup' option is selected. The main content area is titled 'INTERNET SETUP' and contains the following text: 'Choose "Add", "Edit", or "Delete" to configure WAN interfaces. A maximum of 8 entries can be configured.' Below this text is a table titled 'WAN SETUP' with the following data:

	VPI/VCI	VLAN Mux	Service Name	Protocol	IGMP	QoS	NAT	Status	Action
<input type="checkbox"/>	8/35	N/A	pppoe_0_8_35	PPPoE	Disabled	Enable	Enable	Unconfigured	

At the bottom of the page, there are three buttons: 'Add', 'Edit', and 'Delete'.

Click on add for the Internet Connection Setup page.

You will require your VPN-Lite site username and password that you retrieved from the Telkom VPNLite setup site. In the ATM PVC Configuration section, change the VPI setting to “8” and VCI setting to “35”.

**ATM PVC CONFIGURATION**

**VPI:**  (0-255)

**VCI:**  (32-65535)

**Service Category:**  ▾

**Peak Cell Rate:**  (cells/s)

**Sustainable Cell Rate:**  (cells/s)

**Maximum Burst Size:**  (cells)

In the Connection Type section, change the Protocol to PPPoE, Encapsulation Mode to LLC/SNAP Bridging, enable Multiple Vlan Over One Connection, Set the 802.1P priority value and 802.1Q VLAN ID both to -1.

**CONNECTION TYPE**

**Protocol:**  ▾

**Encapsulation Mode:**  ▾

**Enable Multiple Vlan Over One Connection:**

**802.1P Priority [0-7]:**

**802.1Q VLAN ID [0-4094]:**

In the username and password section you will need to enter your VPN-Lite username and password in corresponding fields. Make sure that your authentication Method is set to Auto and your MTU value is set to 1492

**PPP USERNAME AND PASSWORD**

**PPP Username:** site500@evpn.lite000

**PPP Password:** ●●●●●●

**Confirm PPP Password:** ●●●●●●

**Authentication Method:** AUTO ▾

**Dial On Demand (With Idle Timeout Timer):**

**Inactivity Timeout:**  (minutes [1-4320])

**Dial On Manual:**

**Bridge PPPoE Frames Between WAN and Local Ports:**

**MTU Size:** 1492 (1370-1492)

**PPP IP Extension:**

**IPV4 Setting**

**Use Static IP Address.**

**IP Address:** 0.0.0.0

In the Network Address translation section you will need to disable NAT and Firewall. Click on next.

**NETWORK ADDRESS TRANSLATION SETTINGS**

Enable NAT:

Enable Firewall:

Enable IGMP Multicast:

Service Name:

This will take you to the summary screen to confirm the settings. Click Apply.

**SETUP - SUMMARY**

VPI / VCI:	8 / 35
Connection Type:	PPPoE
Service Name:	pppoe_0_8_35_1
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Disabled
Quality Of Service:	Enabled

In the menu on the top click Advanced and then select Routing on the menu on the left followed by Static Route

The screenshot displays the web interface for a D-Link DSL-2750U router. At the top, there is a navigation bar with five tabs: **SETUP**, **ADVANCED** (highlighted with a red box), **MAINTENANCE**, **STATUS**, and **HELP**. On the left side, there is a vertical menu with the following items: **Wireless Settings**, **Port Forwarding**, **Port Triggering**, **DMZ**, **Parental Control**, **Filtering Options**, **DNS**, **Dynamic DNS**, **Storage Service**, **Multicast**, **Network Tools**, **Routing** (highlighted with a red box), and **Schedules**. The main content area is divided into three sections, each with a dark header and a light body. The first section is titled **ROUTING -- STATIC ROUTE** and contains the text "Allows you to manually configure special routes that your network might need." with a **Static Route** button below it. The second section is titled **ROUTING -- DEFAULT GATEWAY** and contains the text "Allows you to configure Default Gateway used by WAN Interface." with a **Default Gateway** button below it. The third section is titled **ROUTING -- POLICY ROUTING** and contains the text "Allows you to configure Policy Routing." with a **Policy Routing** button below it.

You need to setup 3 Static Routes for your VPN-Lite service. You should supply the Destination, Netmask and Interface. The first Destination is 10.0.0.0: the Netmask should be 255.0.0.0 and for Interface select 2<sup>nd</sup> PPP connection. Select Apply to save the first Static Route.

**STATIC ROUTE ADD**

Destination Network Address : 10.0.0.0

Subnet Mask : 255.0.0.0

Use Gateway IP Address :

Use Interface : pppoe\_0\_8\_35\_1/ppp1.1

Apply Cancel

The second Destination is 172.16.0.0: the Netmask should be 255.240.0.0 and for Interface select 2<sup>nd</sup> PPP connection. Select apply to save the second Static Route.



**STATIC ROUTE ADD**

**Destination Network Address :** 172.16.0.0  
**Subnet Mask :** 255.240.0.0

**Use Gateway IP Address** :

**Use Interface** : pppoe\_0\_8\_35\_1/ppp1.1

The third Destination is 192.168.0.0 and Subnet Mask should be 255.255.255.0 and for Interface select 2<sup>nd</sup> PPP connection. Select apply to save the third Static Route.

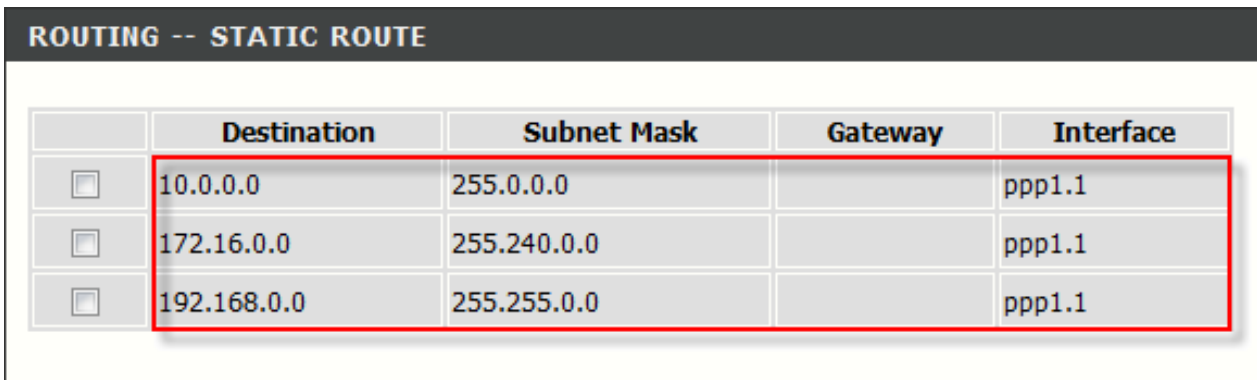
**STATIC ROUTE ADD**

**Destination Network Address :** 192.168.0.0  
**Subnet Mask :** 255.255.0.0

**Use Gateway IP Address** :

**Use Interface** : pppoe\_0\_8\_35\_1/ppp1.1

After all three Static Routes have been added the screen should look like this



The screenshot shows a web interface titled "ROUTING -- STATIC ROUTE". It contains a table with four columns: Destination, Subnet Mask, Gateway, and Interface. There are three rows of static routes, each with a checkbox in the first column. The first row is highlighted with a red border. The Gateway column is empty for all three routes.

	Destination	Subnet Mask	Gateway	Interface
<input type="checkbox"/>	10.0.0.0	255.0.0.0		ppp1.1
<input type="checkbox"/>	172.16.0.0	255.240.0.0		ppp1.1
<input type="checkbox"/>	192.168.0.0	255.255.0.0		ppp1.1

### **Configure your router IP address**

On the Telkom VPN-Lite setup site you would have received a LAN Subnet address that could look like this 10.0.10.0/24.

Your router's LAN IP would then be 10.0.10.2 and your Subnet Mask will be 255.255.255.0.

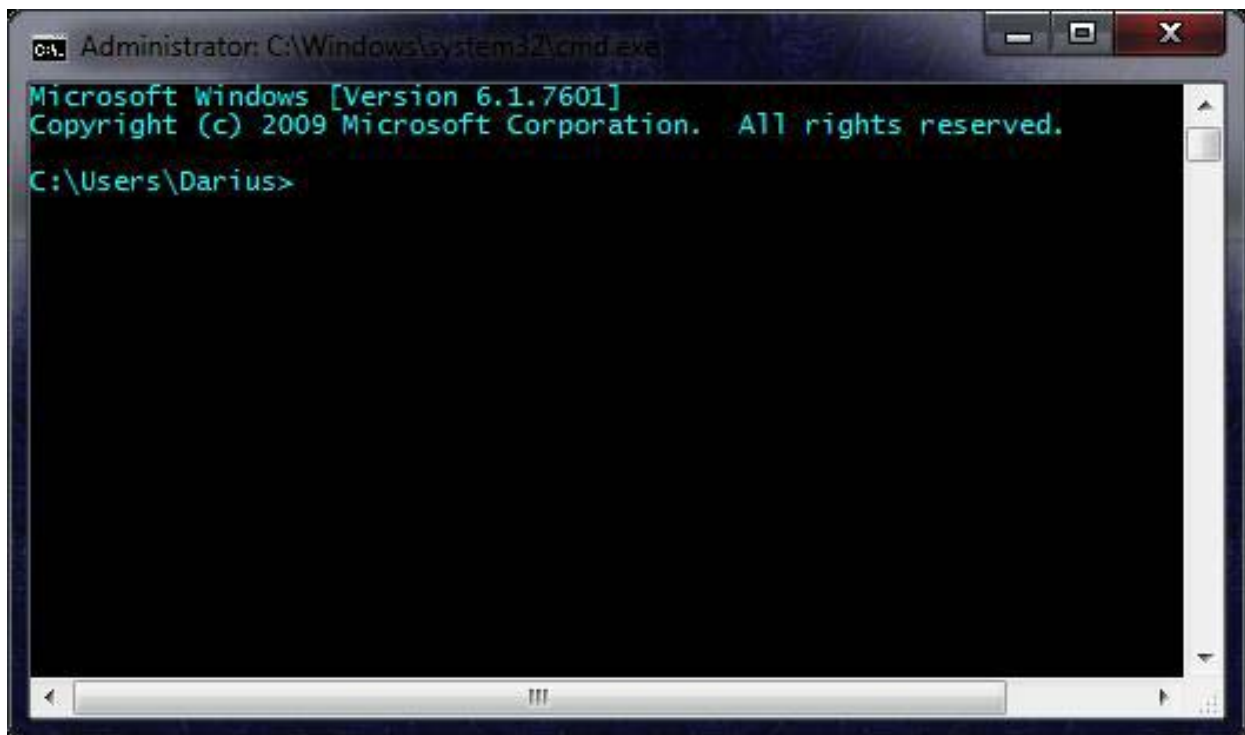
In the menu on the top, firstly click on Setup then on the left menu select Local Network. This screen should appear. Change you IP address and Subnet mask to the desired range as per you VPN-Lite configuration and click on Add.

<b>DSL-2750U</b>	<b>SETUP</b>	<b>ADVANCED</b>	<b>MAINTENANCE</b>	<b>STATUS</b>
Wizard	<b>LOCAL NETWORK</b>			
Internet Setup	This section allows you to configure the local network settings of your router. Please note that this section is optional and you should not need to change any of the settings here to get your network up and running.			
3G Internet Setup	<b>ROUTER SETTINGS</b>			
Wireless Connection	Use this section to configure the local network settings of your router. The Router IP Address that is configured here is the IP Address that you use to access the Web-based management interface. If you change the IP Address here, you may need to adjust your PC's network settings to access the network again.			
<b>Local Network</b>	<p><b>Router IP Address :</b> <input type="text" value="10.0.10.2"/></p> <p><b>Subnet Mask :</b> <input type="text" value="255.255.255.0"/></p> <p><input type="checkbox"/> <b>Configure the second IP Address and Subnet Mask for LAN interface</b></p> <p><b>IP Address :</b> <input type="text"/></p> <p><b>Subnet Mask :</b> <input type="text"/></p>			
Time and Date				
Logout				

You will see that your DHCP values will change to the correct range automatically.

<b>DHCP SERVER SETTINGS (OPTIONAL)</b>	
Use this section to configure the built-in DHCP Server to assign IP addresses to the computers on your network.	
<p><input type="radio"/> <b>Disable DHCP Server</b></p> <p><input checked="" type="radio"/> <b>Enable DHCP Server</b></p>	
<b>DHCP IP Address Range :</b>	<input type="text" value="10.0.10.3"/> to <input type="text" value="10.0.10.254"/>
<b>DHCP Lease Time :</b>	<input type="text" value="24"/> (hours)

Your routers IP address is now changed to the new IP entered in the previous step. To ensure that your PC can still communicate with your D-link router on it new LAN IP address, you should release and renew your PC's IP address. In XP, Vista or Windows 7 press the Start button. Select All Programs\Accessories\Command Prompt. A Command prompt screen will appear



Type the following and press enter: ipconfig /release. You should now wait for your IP to be released. Then type: ipconfig /renew. Your PC's IP will now be renewed and within the new range to enable you to connect to your D-link router's new LAN IP address. You can now close the Command Prompt screen.

To reconnect to your router you need to type the new IP address (10.0.10.2) into your browser navigation bar and press enter.

