



# **DIR-620**

**Wireless N300 Router with 3G/CDMA/LTE Support** and USB Port

#### **BEFORE YOU BEGIN**

## **Delivery Package**

- Router DIR-620
- Power adapter DC 12V/1A
- Ethernet cable (CAT 5E)
- "Quick Installation Guide" (brochure).

If any of the items are missing, please contact your reseller.

The "*User Manual*" and "*Quick Installation Guide*" documents are available on D-Link website (see <a href="www.dlink.ru">www.dlink.ru</a>, DIR-620/A/E1 product page, the downloads tab).

Using a power supply with a different voltage rating than the one included will cause damage and void the warranty for this product.

## **Default Settings**

IP address of wireless router 192.168.0.1

Username (login) admin

Password admin

Name of wireless network (SSID) DIR-620

see WPS PIN on the barcode label on the

Network key (PSK)

bottom panel of the

device

# System Requirements and Equipment

- A computer with any operating system that supports a web browser.
- A web browser to access the web-based interface of the router:
  - Apple Safari 5 and later
  - Google Chrome 5 and later
  - o Microsoft Internet Explorer 8 and later
  - Mozilla Firefox 5 and later
  - Opera 10 and later.
- A NIC (Ethernet or Wi-Fi adapter) to connect to the router.
- An 802.11b, g, or n Wi-Fi adapter to create a wireless network.
- A USB modem to connect to the Internet<sup>1</sup>.

Your USB modem should be equipped with an active identification card (SIM or R-UIM) of your operator.

Some operators require subscribers to activate their USB modems prior to using them. Please, refer to connection guidelines provided by your operator when concluding the agreement or placed on its website.

For CDMA USB modems, it is required to disable the PIN code check on the identification card prior to connecting the USB modem to the router.

<sup>1</sup> Contact your operator to get information on the service coverage and fees.

# Supported USB Modems

#### **GSM** modems

- Alcatel X500
- D-Link DWM-152C1
- D-Link DWM-156A6
- D-Link DWM-156A7
- D-Link DWM-156C1
- D-Link DWM-157B1
- D-Link DWM-157B1 (Velcom)
- D-Link DWM-158D1
- Huawei E150
- Huawei E1550
- Huawei E156G
- Huawei E160G
- Huawei E169G
- Huawei E171
- Huawei E173 (Megafon)
- Huawei E220
- Huawei E352 (Megafon)
- Huawei E367 (3G mode)
- Huawei E392 (3G mode)
- ZTE MF112
- ZTE MF192
- ZTE MF626
- ZTE MF627
- ZTE MF652
- ZTE MF667
- ZTE MF668
- ZTE MF752

#### CDMA modems<sup>2</sup>

- Airplus MCD-650
- Airplus MCD-800
- AnyDATA ADU-300A
- AnyDATA ADU-500A
- AnyDATA ADU-510A
- Huawei EC306
- ZTE AC5710
- ZTE AC5730

#### LTE modems

- Huawei E3131
- Huawei E3272
- Huawei E367
- Huawei E392
- Megafon M100-1
- Megafon M100-3
- Megafon M100-4
- Megafon M150-1
- MTS 824F
- Yota LU-150
- Yota WLTUBA-107
- ZTE MF823
- ZTE MF827
- The manufacturer does not guarantee proper operation of the router with every modification of the firmware of USB modems.

<sup>2</sup> Performance of CDMA USB modems is not tested for the current firmware version.

#### **CONNECTING TO PC**

# PC with Ethernet Adapter

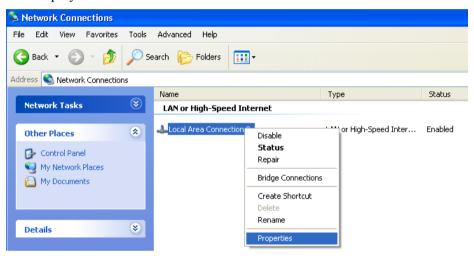
- 1. Make sure that your PC is powered off.
- 2. Connect an Ethernet cable between any of LAN ports located on the back panel of the router and the Ethernet port of your PC.
- 3. To connect via an LTE, 3G GSM or CDMA network: connect your USB modem to the USB port<sup>3</sup> located on the left side panel of the router.
  - If you need to connect or change a USB modem to another one when the router is powered on, power off the router, connect the modem to the USB port, and power on the router.
- 4. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
- 5. Turn on the router by pressing the **ON/OFF** button on its back panel.
- 6. Turn on your PC and wait until your operating system is completely loaded

Now you should configure your PC to obtain an IP address automatically (as DHCP client).

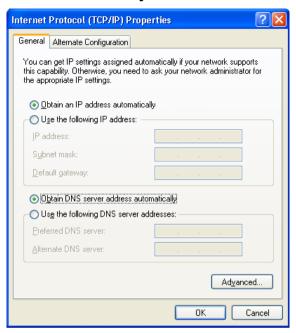
<sup>3</sup> It is recommended to use a USB extension cable to connect a USB modem to the router.

# Obtaining IP Address Automatically in OS Windows XP

- Click the Start button and proceed to the Control Panel > Network and Internet Connections > Network Connections window
- In the Network Connections window, right-click the relevant Local Area Connection icon and select the Properties line in the menu displayed.



 In the Local Area Connection Properties window, on the General tab, select the Internet Protocol (TCP/IP) line. Click the Properties button 4. Select the **Obtain an IP address automatically** and **Obtain DNS server address automatically** radio buttons. Click the **OK** button.

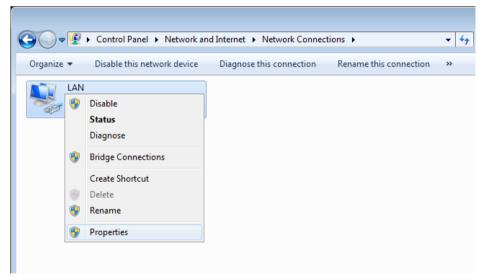


5. Click the **OK** button in the connection properties window.

Now your computer is configured to obtain an IP address automatically.

# Obtaining IP Address Automatically in OS Windows 7

- 1. Click the **Start** button and proceed to the **Control Panel** window.
- Select the Network and Sharing Center section. (If the Control Panel
  has the category view (the Category value is selected from the View by
  drop-down list in the top right corner of the window), choose the View
  network status and tasks line under the Network and Internet
  section.)
- 3. In the menu located on the left part of the window, select the **Change** adapter settings line.
- 4. In the opened window, right-click the relevant **Local Area Connection** icon and select the **Properties** line in the menu displayed.



 In the Local Area Connection Properties window, on the Networking tab, select the Internet Protocol Version 4 (TCP/IPv4) line. Click the Properties button. 6. Select the **Obtain an IP address automatically** and **Obtain DNS server address automatically** radio buttons. Click the **OK** button.



7. Click the **OK** button in the connection properties window.

Now your computer is configured to obtain an IP address automatically.

## PC with Wi-Fi Adapter

- 1. To connect via an LTE, 3G GSM or CDMA network: connect your USB modem to the USB port<sup>4</sup> located on the left side panel of the router.
- If you need to connect or change a USB modem to another one when the router is powered on, power off the router, connect the modem to the USB port, and power on the router.
- 2. Connect the power cord to the power connector port on the back panel of the router, then plug the power adapter into an electrical outlet or power strip.
- 3. Turn on the router by pressing the **ON/OFF** button on its back panel.
- 4. Turn on your PC and wait until your operating system is completely loaded.
- 5. Turn on your Wi-Fi adapter. As a rule, modern notebooks with built-in wireless NICs are equipped with a button or switch that turns on/off the wireless adapter (refer to your PC documents). If your PC is equipped with a pluggable wireless NIC, install the software provided with your Wi-Fi adapter.

Now you should configure your Wi-Fi adapter.

<sup>4</sup> It is recommended to use a USB extension cable to connect a USB modem to the router.

## Configuring Wi-Fi Adapter in OS Windows XP

- Click the Start button and proceed to the Control Panel > Network and Internet Connections > Network Connections window.
- 2. Select the icon of the wireless network connection and make sure that your Wi-Fi adapter is on.



- 3 Search for available wireless networks
- 4. In the opened **Wireless Network Connection** window, select the wireless network **DIR-620** and click the **Connect** button.
- 5. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Network key** and **Confirm network key** fields and click the **Connect** button.

After that the Wireless Network Connection Status window appears.

If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

# Configuring Wi-Fi Adapter in OS Windows 7

- 1. Click the **Start** button and proceed to the **Control Panel** window.
- Select the Network and Sharing Center section. (If the Control Panel
  has the category view (the Category value is selected from the View by
  drop-down list in the top right corner of the window), choose the View
  network status and tasks line under the Network and Internet
  section.)
- 3. In the menu located on the left part of the window, select the **Change** adapter settings line.
- 4. In the opened window, select the icon of the wireless network connection and make sure that your Wi-Fi adapter is on.
- 5. To open the list of available wireless networks, select the icon of the wireless network connection and click the **Connect To** button or left-click the network icon in the notification area located on the right side of the taskbar



6. In the opened window, in the list of available wireless networks, select the wireless network **DIR-620** and click the **Connect** button.



- 7. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in the **Security key** field and click the **OK** button.
- 8. Wait for about 20-30 seconds. After the connection is established, the network icon will be displayed as the signal level scale.
  - If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

#### **CONFIGURING ROUTER**

## Connecting to Web-based Interface

Start a web browser. In the address bar of the web browser, enter the IP address of the router (by default, the following IP address is specified: 192.168.0.1). Press the Enter key.



If the error "The page cannot be displayed" (or "Unable to display the page"/"Could not connect to remote server") occurs upon connecting to the web-based interface of the router, make sure that you have properly connected the router to your computer.

After the first access to the web-based interface you need to change the default administrator password. Enter the new password in the **Password** and **Confirmation** fields. You may set any password except **admin**. Use digits, Latin letters (uppercase and/or lowercase), and characters available on the keyboard. Then click the **Apply** button.

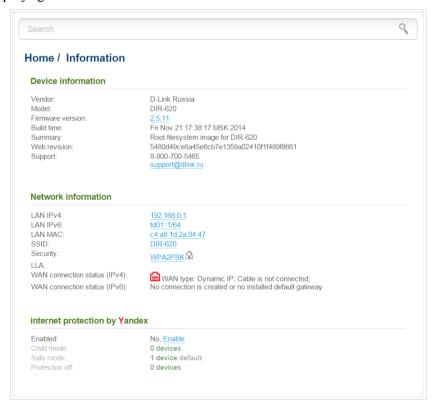


Remember or write down the new password for the administrator account. In case of losing the new password, you can access the settings of the router only after restoring the factory default settings via the hardware RESET button. This procedure wipes out all settings that you have configured for your router.

After changing the password the login page opens. Enter the username (admin) in the Login field and the new password in the Password field, then click the Enter button



After successful registration the **Home / Information** page opens. The page displays general information on the router and its software.



The web-based interface of the router is multilingual. If you need to select another language for the web-based interface, place the mouse pointer over the **English** caption in the top part of the page and select a language from the menu displayed.



To configure the router use the menu in the left part of the page. Go to the relevant section and select the needed page or run the needed Wizard in the **Home** section

Also you can find a specific page via search. To do this, enter the name of the page, wholly or partly, in the search bar in the top part of the web-based interface page, and then select a needed link in the search results.

# Configuring Connection to the Internet

You should configure your WAN connection in accordance with data provided by your Internet service provider (ISP). Make sure that you have obtained all necessary information prior to configuring your connection. Otherwise contact your ISP.

#### LTE WAN Connection

If the PIN code check is enabled for the SIM card inserted into your LTE USB modem, it is required to disable the PIN code check on the identification card prior to connecting the USB modem to the router.

An active LTE WAN connection will be automatically created on the **Net** / **WAN** page when connecting a USB modem to the router. If the connection has not been created automatically, create a new connection manually.

- For the USB modem Megafon M100-1, please reboot the router after creating the WAN connection.
- 1. Go to the **Net / WAN** page and click the **Add** button.
- 2. In the **General settings** section, in the **Provider** drop-down list, leave the **Manually** value.
- 3. From the **Connection Type** drop-down list, select the **LTE** value.
- 4. Make sure that the **USB** value is selected from the **Interface** drop-down list
- 5. Specify a name for your connection (any name for easier identification) in the **Name** field.



6. If your operator requires to specify the access point name, in the **USB** modem section, fill in the **APN** field.



If your operator has provided the address of the DNS server, in the IP section, deselect the Obtain DNS server addresses automatically checkbox and fill in the Primary DNS server field.



- 8. Click the **Apply** button.
- 9. On the **Net / WAN** page, select the choice of the **Default gateway** radio button corresponding to the new LTE WAN connection.

#### **3G WAN Connection**

If the PIN code check is enabled for the SIM card inserted into your USB modem, then prior to creating a 3G WAN connection, proceed to the **3G/LTE modem / PIN** menu and enter the PIN code on the page displayed<sup>5</sup>.

If the PIN code check for the SIM card inserted into your USB modem is disabled, an active 3G WAN connection will be automatically created on the **Net / WAN** page when connecting a USB modem to the router<sup>6</sup>. If the connection has not been created automatically, create a new connection manually.

- 1. Go to the **Net / WAN** page and click the **Add** button.
- In the **General settings** section, from the **Provider** drop-down list, select your country and operator to automatically specify all settings required to connect to the Internet. To specify all settings independently, leave the **Manually** value.
- 3. From the **Connection Type** drop-down list, select the **3G** value.
- 4. Make sure that the **USB** value is selected from the **Interface** drop-down list.
- 5. Specify a name for your connection (any name for easier identification) in the **Name** field.



<sup>5</sup> For GSM USB modems only. For CDMA USB modems, it is required to disable the PIN code check on the identification card prior to connecting the USB modem to the router.

<sup>6</sup> For GSM USB modems only.

6. If you need to specify other settings, in the PPP section, enter authorization data provided by your operator (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required. If you need to specify the access point name, fill in the APN field. In the Dial number field, enter the number dialed to connect to the authorization server of the operator.



- 7. Click the **Apply** button.
- 8. On the **Net / WAN** page, select the choice of the **Default gateway** radio button corresponding to the new 3G WAN connection.

#### **Wired WAN Connection**

- Go to the **Net / WAN** page and delete the default connections (WAN/WAN\_v6). To do this, select the checkbox located to the left of the relevant line in the table and click the **Delete** button
- 2. Click the **Add** button.
- 3. In the **General settings** section, in the **Provider** drop-down list, leave the **Manually** value.
- 4. From the **Connection Type** drop-down list, select the needed value.
- 5. From the **Interface** drop-down list, select the **Internet** value.
- 6. Specify a name for your connection (any name for easier identification) in the **Name** field.



7. If your ISP uses MAC address binding, in the **Ethernet** section, in the **MAC** field, enter the MAC address registered by your ISP upon concluding the agreement. To set the MAC address of the network interface card (of the computer that is being used to configure the router at the moment) as the MAC address of the WAN interface, click the **Clone MAC address of your computer** icon ( ). To set the address of a device connected to the router's LAN at the moment, select the relevant value from the drop-down list (the field will be filled in automatically). To set the router's MAC address as the MAC address of the WAN interface, click the **Restore default MAC address** icon ( ).



8. If your ISP uses authorization via the 802.1x protocol, in the **Authorization via 802.1x protocol** section, select the **Authorization** in the ISP's network via 802.1x protocol checkbox. Fill in the fields of the section in accordance with data provided by your ISP. The section is not displayed for the connection of PPPoE, IPv6 PPPoE, PPPoE Dual Stack, Static IPv6, and Dynamic IPv6 types.



9. For connection of PPPoE type: in the PPP section, enter authorization data provided by your ISP (the username (login) in the **Username** field and the password in the **Password** and **Password confirmation** fields), or select the **Without authorization** checkbox if authorization is not required.



10. For connection of IPv6 PPPoE or PPPoE Dual Stack type: in the PPP section, enter authorization data provided by your ISP (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required. If you need to specify the gateway address manually, in the IPv6 gateway section, deselect the SLAAC checkbox and fill in the Static IPv6 gateway address field.



11. For connection of Static IP type: in the IP section, fill in the IP Address, Netmask, Gateway IP address, and Primary DNS server fields.

IP	
IP Address:*	
Netmask:*	
Gateway IP address:*	
Primary DNS server:*	
Secondary DNS server:	

12. For connection of Dynamic IP type: if your ISP has provided the address of the DNS server, in the IP section, deselect the Obtain DNS server addresses automatically checkbox and fill in the Primary DNS server field.

IP		
Obtain DNS server address automatically:	es 🗌	
Primary DNS server:*		
Secondary DNS server:		
Vendor ID:		
Hostname:		

13. For connection of Static IPv6 type: in the IP section, fill in the IPv6 address and Gateway IPv6 address fields.



14. For connection of Dynamic IPv6 type: if your ISP has provided the address of the DNS server, in the IP section, deselect the Obtain DNS server addresses automatically checkbox and fill in the Static primary DNS server field.



15. For connection of PPPoE + Static IP type: in the IP section, fill in the IP Address, Netmask, Gateway IP address, and Primary DNS server fields. Then in the PPP section, enter authorization data provided by your ISP (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required.

IP	
IP Address:*	
Netmask.*	
Gateway IP address:*	
Primary DNS server:*	
Secondary DNS server:	
PPP	
Username:*	
Without authorization:	
Password:*	
Password confirmation:*	

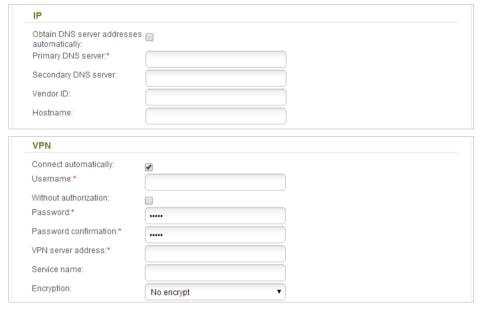
16. For connection of PPPoE + Dynamic IP type: if your ISP has provided the address of the DNS server, in the IP section, deselect the Obtain DNS server addresses automatically checkbox and fill in the Primary DNS server field. Then in the PPP section, enter authorization data provided by your ISP (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required.

IP	
Obtain DNS server addresse automatically:	
Primary DNS server:*	
Secondary DNS server:	
Vendor ID:	
Hostname:	
PPP	
Username:*	
Without authorization:	
Password:*	
Password confirmation:*	

17. For connection of PPTP + Static IP or L2TP + Static IP type: in the IP section, fill in the IP Address, Netmask, Gateway IP address, and Primary DNS server fields. Then in the VPN section, enter authorization data provided by your ISP (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required. In the VPN server address field, enter the IP or URL address of the PPTP or L2TP authentication server. If your ISP applies encryption, select a needed value from the Encryption drop-down list.

IP		
IP Address:*		
Netmask:*		
Gateway IP address:*		
Primary DNS server:*		
Secondary DNS server:		
VPN		
Connect automatically:	•	
Username:*		
Without authorization:		
Password:*	••••	
Password confirmation:*	••••	
VPN server address:*		
Service name:		
Encryption:	No encrypt	

18. For connection of PPTP + Dynamic IP or L2TP + Dynamic IP type: if your ISP has provided the address of the DNS server, in the IP section, deselect the Obtain DNS server addresses automatically checkbox and fill in the Primary DNS server field. Then in the VPN section, enter authorization data provided by your ISP (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required. In the VPN server address field, enter the IP or URL address of the PPTP or L2TP authentication server. If your ISP applies encryption, select a needed value from the Encryption drop-down list.

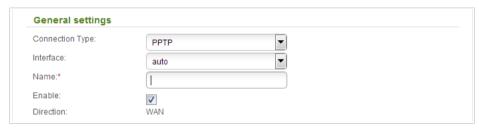


- 19. If needed, fill in other fields on the page in accordance with data provided by the ISP.
- 20. Click the **Apply** button.

#### **Configuring User Tunnel**

Create your WAN connection in accordance with data provided by your ISP. Then create a connection of the PPTP or L2TP type.

- 1. Go to the **Net / WAN** page and click the **Add** button.
- 2. From the **Connection Type** drop-down list, select the needed value.
- 3. Make sure that the **auto** value is selected from the **Interface** drop-down list
- 4. Specify a name for your connection (any name for easier identification) in the **Name** field.



5. In the VPN section, enter authorization data to connect to a remote server (the username (login) in the Username field and the password in the Password and Password confirmation fields), or select the Without authorization checkbox if authorization is not required. In the VPN server address field, enter the IP or URL address of the PPTP or L2TP authentication server.



6. Click the **Apply** button.

#### **Configuring WAN Backup Function**

1. Go to the **Net / WAN** page and create the main WAN connection.



2. On the **Net / WAN** page, create the reserve WAN connection.



3. Proceed to the **Net / Reservation WAN** page and select the **Enable reservation** checkbox.



- 4. From the **Basic connection** drop-down list, select a WAN connection which will be used as the main one.
- 5. From the **Backup connection** drop-down list, select a WAN connection which will be used as the reserve one.
- 6. If needed, specify new values in the fields displayed on the page.
- Click the **Save** button.

#### **Example of Connection via VLANs**

If your ISP provides:

- access to the Internet via the VLAN with the tag (VLAN ID) 2, the PPPoE connection type, the login user, and the password user password,
- access to IPTV service via the VLAN with the tag (VLAN ID) 10,
- access to IP telephony via the VLAN with the tag (VLAN ID) 20,

and your set-top box is connected to the LAN port 3, your VoIP phone is connected to the LAN port 4 of the router, then follow the next steps to configure the router.

- 1. Go to the **Net / WAN** page, select the **WAN** connection and click the **Delete** button on the opened page.
- 2. Go to the **Advanced / VLAN** page.
- 3. Select the **lan** group.
- 4. Deselect the **port3** checkbox.
- 5. Deselect the **port4** checkbox.
- 6. Click the **Save** button.
- 7. Select the **wan** group and click the **Delete** button.
- 8. Click the **Add** button.
- 9. In the **Name** field, enter a name for the group (**INTERNET**).
- 10. From the **Type** drop-down list, select the **Tagged NAT** value.
- 11. From the **Tagged port** drop-down list, select the value **internet** (corresponds to the **INTERNET** port of the router).
- 12. In the **VLAN ID** field, enter **2**.
- 13. Click the **Save** button.

You have created the group of ports for connection to the Internet.

- 14. Click the **Add** button.
- 15. In the **Name** field, enter a name for the new group (**IPTV**).
- 16. From the **Type** drop-down list, select the **Bridge** value.
- 17. From the **Tagged port** drop-down list, select the **internet** value.
- 18. Select the **port3** checkbox.
- 19. In the **VLAN ID** field, enter **10**.
- 20. Click the **Save** button.

You have created the group of ports for IPTV service.

- 21. Click the **Add** button.
- 22. In the **Name** field, enter a name for the new group (**VOIP**).
- 23. From the **Type** drop-down list, select the **Bridge** value.
- 24. From the **Tagged port** drop-down list, select the **internet** value.
- 25. Select the **port4** checkbox.
- 26. In the **VLAN ID** field, enter **20**.
- 27. Click the **Save** button.

You have created the group of ports for access to IP telephony.

dvanced / VLAN					
Name	Туре	Untagged ports	Tagged port	VLAN ID	Enable
lan	LAN	port1,port2,wifi1			Yes
INTERNET	Tagged NAT		internet	2	Yes
IPTV	Bridge	port3	internet	10	Yes
VOIP	Bridge	port4	internet	20	Yes

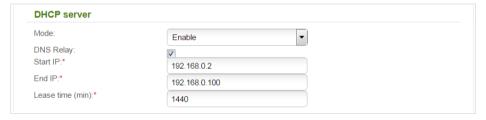
- 28. Log into the web-based interface and go to the **Net / WAN** page.
- 29. Click the **Add** button.
- 30. On the opened page, select the **PPPoE** value from the **Connection Type** drop-down list.
- 31. From the **Interface** drop-down list, select the **Internet.2** value.
- 32. In the **Username** field, enter **user**.
- 33. Deselect the **Without authorization** checkbox.
- 34. In the **Password** and **Password confirmation** fields, enter user password.
- 35. Click the **Apply** button.

## Configuring Local Area Network

Go to the Net / LAN page. If needed, change the IP address of the router's LAN interface and the mask of the local subnet in the IP Address and Netmask fields. To change the IPv6 address of the router's LAN interface, deselect the DHCP PD checkbox in the IPv6 DHCP server section



2. By default, the DHCP server of the router is enabled. In the **DHCP server** section, you can change the parameters of the DHCP server. If you want to manually assign IP addresses to devices of your LAN, disable the DHCP server (select the **Disable** value from the **Mode** drop-down list).



3. By default, the DHCPv6 server of the router is enabled. In the **IPv6 DHCP server** section, you can disable the DHCPv6 server or change its operating mode.

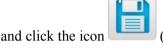


4. After specifying the needed parameters on the **Net / LAN** page, click the **Apply** button.

# Saving Settings to Non-volatile Memory

In order to avoid losing the new settings upon hardware reboot (accidental or intentional power-off of the device), it is recommended to save the settings to the non-volatile memory of the router.

Place the mouse pointer over the **System** caption in the top part of the page



(Save) in the menu displayed. Then again place the

mouse pointer over the **System** caption and click the icon **device**).

(Reboot

Wait until the router is rebooted. Now you can use it to access the Internet or access the web-based interface of the router to configure additional parameters. For detailed description of every page of the web-based interface, see the "*User Manual*" document (see <a href="www.dlink.ru">www.dlink.ru</a>, DIR-620/A/E1 product page, the downloads tab).

#### **TECHNICAL SUPPORT**

You can find software updates and user documentation on our website.

D-Link provides its customers with free support within the product's warranty period.

Customers can contact the technical support group by phone or by e-mail/Internet.

# FOR TELEPHONE NUMBERS AND ADDRESSES OF D-LINK OFFICES WORLDWIDE VISIT

http://www.dlink.com/corporate/worldwideoffices/