



DIR-651

Wireless N 300 Gigabit Router

BEFORE YOU BEGIN

Delivery Package

- Router DIR-651
- Power adapter DC 12V/1.2A
- 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 www.dlink.ru).

! 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-651
Network key (PSK)	see WPS PIN on the barcode label on the bottom panel of the device

! For security reasons, router DIR-651 with default settings cannot connect to the Internet. To get started, please set your own password used to access the web-based interface and, if needed, configure other settings recommended by your ISP.

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
 - 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.

CONNECTING TO PC

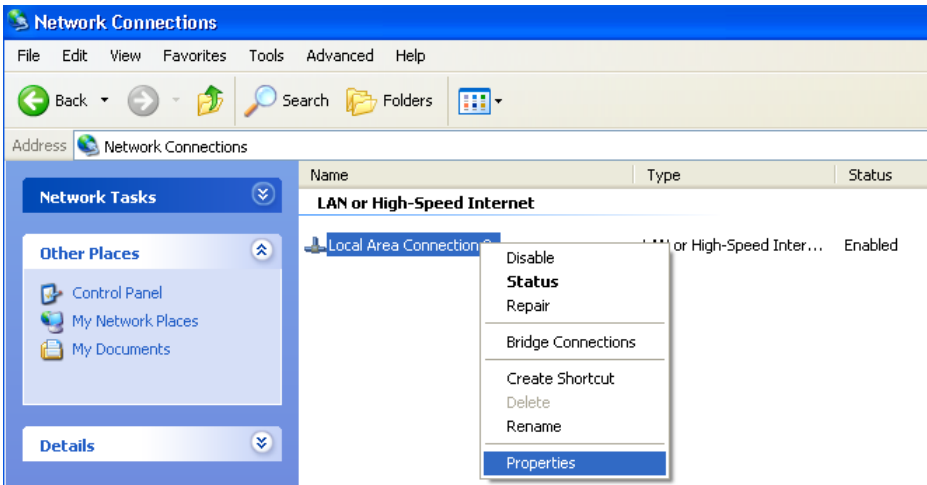
PC with Ethernet Adapter

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. 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.
4. Turn on the router by pressing the **ON/OFF** button on its back panel.
5. 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).

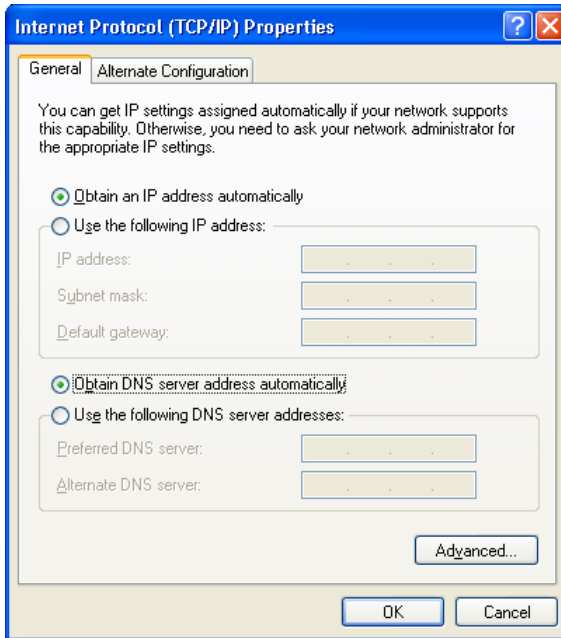
Obtaining IP Address Automatically in OS Windows XP

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



3. 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.

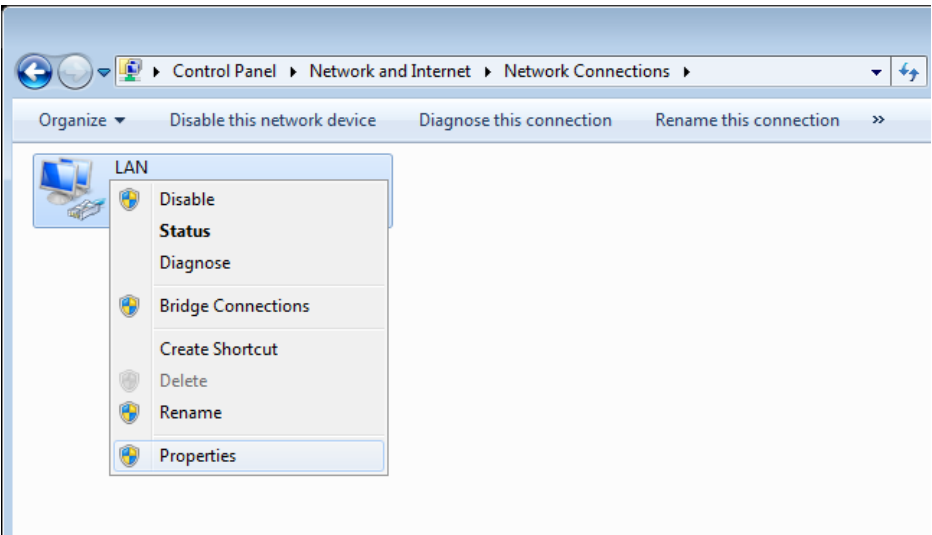


5. Click the **OK** button in the connection properties window.

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

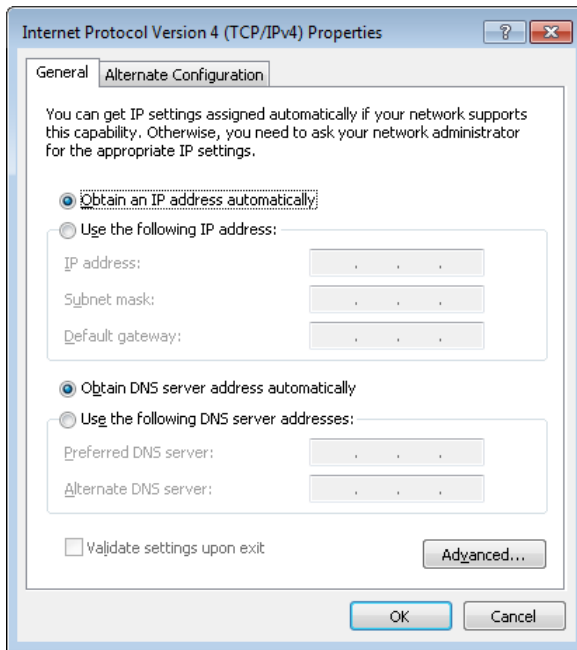
Obtaining IP Address Automatically in OS Windows 7

1. Click the **Start** button and proceed to the **Control Panel** window.
2. 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.



5. 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.

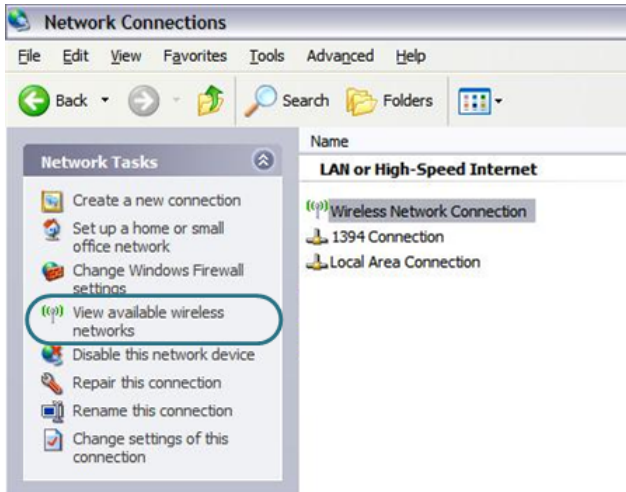
PC with Wi-Fi Adapter

1. 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.
2. Turn on the router by pressing the **ON/OFF** button on its back panel.
3. Turn on your PC and wait until your operating system is completely loaded.
4. 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.

Configuring Wi-Fi Adapter in OS Windows XP

1. 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-651** 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.

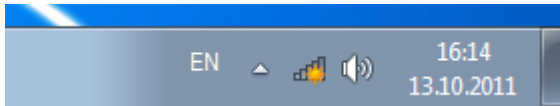
After that the **Wireless Network Connection Status** window appears.



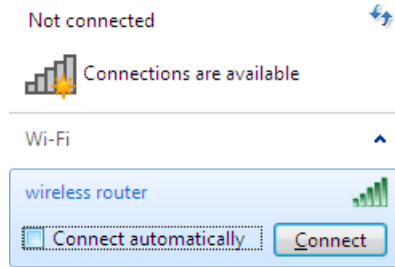
If you perform initial configuration of the router via Wi-Fi connection, note that immediately after changing the wireless default settings of the router you will need to reconfigure the wireless connection using the newly specified settings.

Configuring Wi-Fi Adapter in OS Windows 7

1. Click the **Start** button and proceed to the **Control Panel** window.
2. 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.



- In the opened window, in the list of available wireless networks, select the wireless network **DIR-651** and click the **Connect** button.



Open Network and Sharing Center

- 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.
- 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. Also you need to change the default name of the wireless network. To do it, in the **Network name (SSID)** field, enter a new name for the router's wireless network or leave the value suggested by the router: **DIR-651-XXXX** where **XXXX** are the last 4 characters of the device's MAC address. Then click the **Apply** button.

Please, change default password

Password

Confirmation

Please, change default SSID

Network name (SSID)

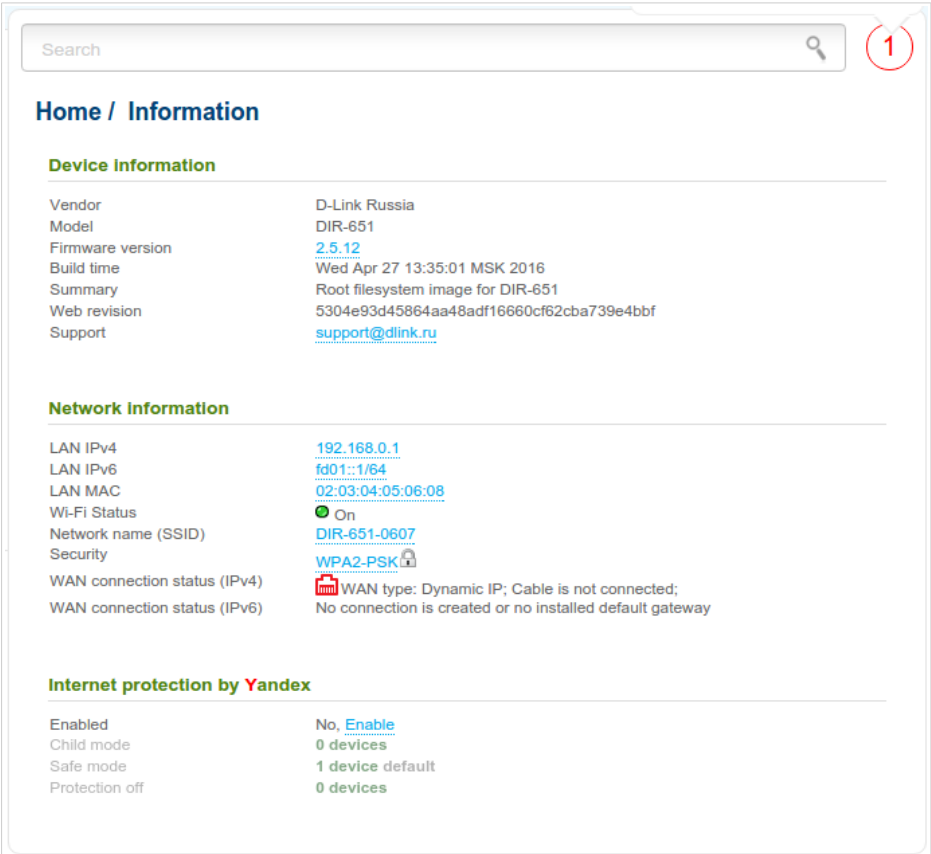
! Remember or write down the new password for the administrator account. In case of losing the new password, you can access the settings of the router only after restoring the factory default settings via the hardware **RESET** button. This procedure wipes out all settings that you have configured for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


When the web-based interface is accessed the next time and after, 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.



The image shows a screenshot of a web-based login interface for a D-Link device. The interface is titled "D-LINK DEVICE" in a grey header bar. Below the header, there are two text input fields. The first field is labeled "Login" and the second is labeled "Password". At the bottom of the form, there are two buttons: "Clear" and "Enter".

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






Search  1

Home / Information

Device Information

Vendor	D-Link Russia
Model	DIR-651
Firmware version	2.5.12
Build time	Wed Apr 27 13:35:01 MSK 2016
Summary	Root filesystem image for DIR-651
Web revision	5304e93d45864aa48adf16660cf62cba739e4bbf
Support	support@dlink.ru

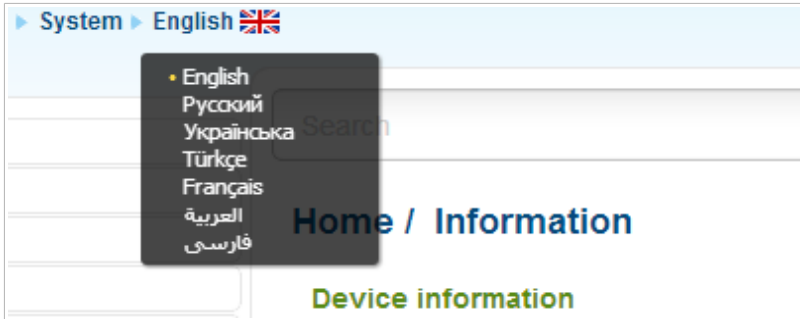
Network Information

LAN IPv4	192.168.0.1
LAN IPv6	fd01::1/64
LAN MAC	02:03:04:05:06:08
Wi-Fi Status	 On
Network name (SSID)	DIR-651-0607
Security	WPA2-PSK 
WAN connection status (IPv4)	 WAN type: Dynamic IP; Cable is not connected;
WAN connection status (IPv6)	No connection is created or no installed default gateway

Internet protection by Yandex

Enabled	No, Enable
Child mode	0 devices
Safe mode	1 device default
Protection off	0 devices

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.

Configuring WAN Connection

1. Go to the **Net / WAN** page, select the **WAN** connection and click the **Delete** button.
2. Click the **Add** button.
3. In the **General settings** section, select a needed value from the **Connection Type** drop-down list.
4. From the **Interface** drop-down list, select the **Internet** value.
5. Specify a name for your connection (any name for easier identification) in the **Name** field.

General settings



Connection Type:



Interface:

Name:*

Enable:

Direction: WAN

6. 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 ().

Ethernet	
MTU:*	<input type="text" value="1500"/>
MAC:	<input type="text" value="9c:d6:43:3d:01:05"/>  

7. **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.

PPP

Username:*

Without authorization:

Password:*

Password confirmation:*

8. **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.

PPP

Username:*

Without authorization:

Password:*

Password confirmation:*

IPv6 gateway

SLAAC:

Static IPv6 gateway address:

9. *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:

10. *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 addresses automatically:

Primary DNS server:*

Secondary DNS server:

Vendor ID:

Hostname:

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

IP

IPv6 address:*

Gateway IPv6 address:*

Primary IPv6 DNS server:

Secondary IPv6 DNS server:

12. **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.

IP

Get IPv6:

Gateway by SLAAC:

Static IPv6 gateway address:

Obtain DNS server addresses automatically:

Static primary DNS server:

Static secondary DNS server:

13. **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:*	<input type="text"/>
Netmask:*	<input type="text"/>
Gateway IP address:*	<input type="text"/>
Primary DNS server:*	<input type="text"/>
Secondary DNS server:	<input type="text"/>

PPP	
Username:*	<input type="text"/>
Without authorization:	<input type="checkbox"/>
Password:*	<input type="password"/>
Password confirmation:*	<input type="password"/>

14. **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 addresses automatically:	<input type="checkbox"/>
Primary DNS server:*	<input type="text"/>
Secondary DNS server:	<input type="text"/>
Vendor ID:	<input type="text"/>
Hostname:	<input type="text"/>

PPP	
Username:*	<input type="text"/>
Without authorization:	<input type="checkbox"/>
Password:*	<input type="password"/>
Password confirmation:*	<input type="password"/>

15. **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:*

Encryption:

16. *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.

IP

Obtain DNS server addresses automatically:

Primary DNS server:*

Secondary DNS server:

Vendor ID:

Hostname:

VPN

Connect automatically:

Username:*

Without authorization:

Password:*

Password confirmation:*

VPN server address:*

Encryption:

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

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

Advanced / VLAN

Name	Type	Untagged ports	Tagged port	VLAN ID	Enable
lan	LAN	port1,port2,wifi 1			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. If you need to change the IPv6 address of the router's LAN interface, deselect the **DHCP PD** checkbox in the **IPv6 address assignment** section and specify the relevant value in the **IPv6 address** field.

IP Address:*	<input type="text" value="192.168.0.1"/>
Netmask:*	<input type="text" value="255.255.255.0"/>
IPv6 address:	<input type="text" value="fd01::1/64"/>

- DHCP server.** By default, the built-in DHCP server of the router assigns IPv4 addresses to the devices of the LAN. If you want to manually assign IPv4 addresses, disable the DHCP server (select the **Disable** value from the **Mode** drop-down list).

DHCP server	
Mode:	<input type="text" value="Enable"/>
DNS Relay:	<input checked="" type="checkbox"/>
Start IP:*	<input type="text" value="192.168.0.2"/>
End IP:*	<input type="text" value="192.168.0.100"/>
Lease time (min):*	<input type="text" value="1440"/>

- IPv6 address assignment.** By default, the devices of the LAN automatically assign IPv6 addresses to themselves (the **Stateless** value is selected from the **Mode** drop-down list in the **IPv6 address assignment** section). If the devices of the LAN do not support IPv6 address autoconfiguration, enable the built-in DHCPv6 server of the router (select the **Stateful** value). If you want to manually assign IPv6 addresses to devices of the LAN, select the **Disable** value.

IPv6 address assignment	
DHCP PD:	<input checked="" type="checkbox"/>
Mode:	<input type="text" value="Stateless"/>
Leased Time (min):*	<input type="text" value="5"/>

- After specifying the DHCP server settings, click the **Apply** button.

Configuring Guest Wireless Network

1. Go to the **Wi-Fi / Basic settings** page.
2. Select **2** from the **MBSSID** drop-down list.

Wi-Fi / Basic settings

Enable Wireless:

Broadcast wireless network:

i This function allows you to enable or disable broadcasting wireless network without disconnecting the radio router. Can be used in conjunction with a "Client Wi-Fi"

MBSSID:

BSSID:

Enable guest network:

3. Click the **Apply** button.
4. From the **BSSID** drop-down list, select the created part of the network (the second value in the list).
5. Select the **Enable guest network** checkbox.
6. If needed, specify a new name for the guest network in the **Network name (SSID)** field.
7. Click the **Apply** button.

8. Go to the **Wi-Fi / Security settings** page.
9. From the **BSSID** drop-down list, select the guest network (the second value in the list).
10. Select the **WPA2-PSK** value from the **Network Authentication** drop-down list.

Wi-Fi / Security settings

BSSID:

Network Authentication:

Encryption Key PSK:*

WPA Encryption settings

WPA Encryption:

WPA renewal:*

11. Enter a key (a password that will be used to access your guest network) in the **Encryption Key PSK** field. Use digits and Latin characters.
12. Select the **AES** value from the **WPA Encryption** drop-down list.
13. 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



and click the icon **(Save)** in the menu displayed. Then again place the



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

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 www.dlink.ru).

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/>