



DIR-300NRU

Wireless N150 Router

BEFORE YOU BEGIN

Delivery Package

- Router DIR-300NRU
- Power adapter DC 5V/1A
- Ethernet cable
- "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 <u>www.dlink.ru</u>).

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-300NRU |
| Network key (PSK) | see WPS PIN on the barcode label on the 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
 - 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

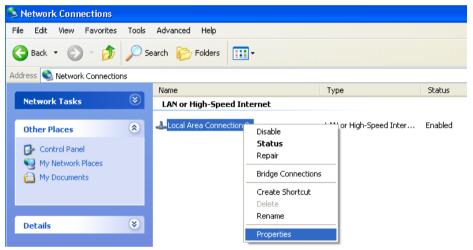
PC with Ethernet Adapter

- 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 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.

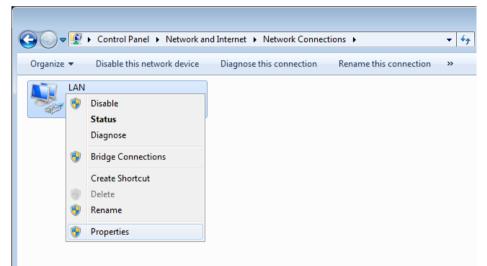
| Internet Protocol (TCP/IP) Prope | rties 🛛 🛛 🔀 |
|---|-------------------|
| General Alternate Configuration | |
| You can get IP settings assigned autor this capability. Otherwise, you need to a the appropriate IP settings. | |
| Obtain an IP address automatical | y |
| Use the following IP address: — | |
| IP address: | |
| S <u>u</u> bnet mask: | |
| Default gateway: | |
| Obtain DNS server address autor | natically |
| OUse the following DNS server add | fresses: |
| Preferred DNS server: | |
| Alternate DNS server: | |
| | Ad <u>v</u> anced |
| | OK Cancel |

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.



 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.

| Internet Protocol Version 4 (TCP/IPv4) Pr | roperties 🔹 🔋 💌 |
|--|-------------------|
| General Alternate Configuration | |
| You can get IP settings assigned automa this capability. Otherwise, you need to a for the appropriate IP settings. | |
| Obtain an IP address automatically | |
| O Use the following IP address: | |
| IP address: | |
| Sybnet mask: | |
| Default gateway: | · · · |
| Obtain DNS server address automatic | tically |
| OUSE the following DNS server addre | sses: |
| Preferred DNS server: | |
| <u>A</u> lternate DNS server: | · · · |
| Validate settings upon exit | Ad <u>v</u> anced |
| | OK Cancel |

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 your PC and wait until your operating system is completely loaded.
- 3. 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.



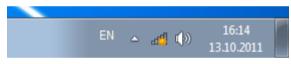
- 3. Search for available wireless networks.
- 4. In the opened **Wireless Network Connection** window, select the wireless network **DIR-300NRU** and click the **Connect** button.
- 5. In the opened window, enter the network key (see WPS PIN on the barcode label on the bottom panel of the device) in 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.



6. In the opened window, in the list of available wireless networks, select the wireless network **DIR-300NRU** 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.

| Please, change default password | |
|---------------------------------|--|
| Password | |
| Confirmation | |
| Apply | |

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/WPS** 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 password you specified in the **Password** field, then click the **Enter** button.

| D-LINK DEVICE | |
|---------------|--|
| Login | |
| Password | |
| Clear 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: Model: Firmware version: Build time: Summary: Web revision: Support: | D-Link Russia DIR-300NRU rev.B7 2.5.13 Fri Oct 2 14:39:53 MSK 2015 Root filesystem image for DIR-300NRU rev.B7 9342f90c3ba4af67e81aeca12a88c5686e22bb90 8-800-700-5465 support@dlink.ru | |
| Network information | | |
| LAN IP: LAN MAC: SSID: Security: WAN connection status: | 192.168.0.1 ac.f1.df.2c.e2.75 DIR-300NRU WPA2PSK → WPA2PSK → → WAN type: Dynamic IP; Cable is not connected; | |
| Internet protection by Y | | |
| Enabled: Child mode: Safe mode: Protection off: | No, <u>Enable</u> 0 devices 1 device default 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. From the **Connection Type** drop-down list, select the needed value.
- 4. Select the **WAN** value from the **Interface** drop-down list in the **General settings** section.
- 5. Specify a name for your connection (any name for easier identification) in the **Name** field.

| General settings | | |
|------------------|----------|---|
| Connection Type: | PPPoE | • |
| Interface: | WAN | - |
| Name:* | INTERNET | |
| Enable: | | |
| Direction: | WAN | |

MAC

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 (\blacksquare). 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:* | 1500 | |

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 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: | |

 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 addres automatically: | ses |
| Primary DNS server:* | |
| Secondary DNS server: | |
| Vendor ID: | |
| Hostname: | |

10. 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:* | |

11. 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: | 3 | |
| Primary DNS server:* | | 1 |
| Secondary DNS server: | | |
| Vendor ID: | | |
| Hostname: | | |
| PPP | | |
| Username:* | | |
| Without authorization: | | |
| Password:* | ••••• |] |
| Password confirmation:* | | í |

12. 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: | V |
| Username:* | |
| Without authorization: | |
| Password:* | ••••• |
| Password confirmation:* | |
| Password will be displayed | as 5 characters to conceal the actual password length after saving the settings |
| VPN server address:* | |
| | |

13. 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:* | Ø. |
| Without authorization: | |
| Password:* | |
| Password confirmation:* | |
| Password will be displayed as | 5 characters to conceal the actual password length after saving the settings |
| VPN server address:* | |
| Encryption: | No encrypt |

- 14. If needed, fill in other fields on the page in accordance with data provided by the ISP.
- 15. 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.
- 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 **WAN** (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. In the **Tagged ports** section, select the **WAN** checkbox.
- 18. In the **Untagged ports** section, 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. In the **Tagged ports** section, select the **WAN** checkbox.
- 25. In the Untagged ports section 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.

| dvanced / VLAN | | | | | |
|----------------|------------|-------------------|--------------|---------|--------|
| Name | Туре | Untagged ports | Tagged ports | VLAN ID | Enable |
| lan | LAN | port1,port2,wifi1 | | | Yes |
| INTERNET | Tagged NAT | | | 2 | Yes |
| IPTV | Bridge | port3 | WAN | 10 | Yes |
| VOIP | Bridge | port4 | WAN | 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 **WAN.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. Then click the Apply button.

| IP Address:* | 192.168.0.1 |
|--------------|---------------|
| Netmask:* | 255.255.255.0 |

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).

| DHCP server | | |
|--------------------|---------------|---|
| Mode: | Enable | • |
| DNS Relay: | | |
| Start IP:* | 192.168.0.2 | |
| End IP:* | 192.168.0.100 | |
| Lease time (min):* | 1440 | |

3. After specifying the DHCP server settings, 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

| H | - |
|---|---|
| | _ |
| | |
| L | |

and click the icon

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



mouse pointer over the **System** caption and click the icon **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 <u>www.dlink.ru</u>).

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/