



METHOD OF INSTALLING A WIRELESS NETWORK Wi-Fi CONNECTION

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ABSTRACT

Undoubtedly, the important wireless technology is now undeniable, as fewer people turn to wired solutions every day. Nowadays, an increasing number of users rely on wireless technology due to mobility, convenience and affordability.

KEYWORDS

Wi-Fi networks, radio, wireless technologies, Wi-Fi standards, wireless network technology.

INTRODUCTION

Wireless networks such as WI-FI provide an alternative to wired LANs. Instead of cables, such networks use radio waves that propagate through the air. Radio waves are all-pervasive and oscillate just like electromagnetic waves. WI-FI is a local area network that complies with IEEE 802.11 standards [4].

Although the term WI-FI does not stand for anything, at the initial stage of its appearance on the market, it was interpreted as Wireless Fidelity. This interpretation

was used to draw attention to the new technology in the market. Today, for us, the term WI-FI means wireless LAN technology.

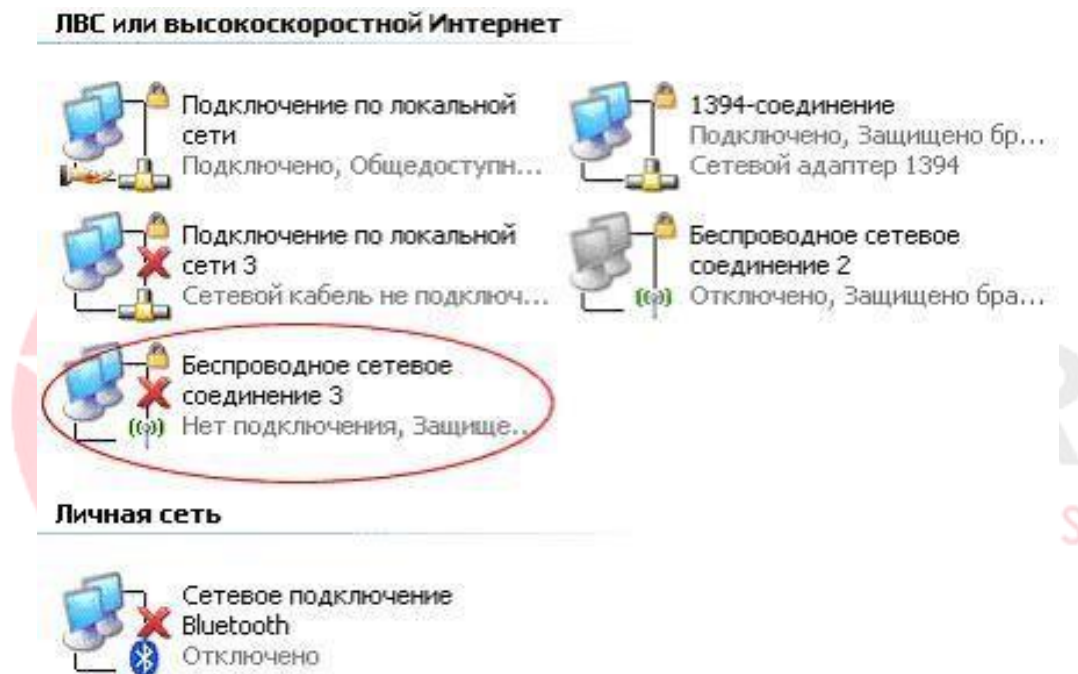
For an example of installing a Wi-Fi network, there is a stationary computer with a permanent connection to the Internet, and a laptop that we would like to connect to a local network, as well as provide a joint Internet connection. To date, there are several solutions to this problem, but not all of them can be



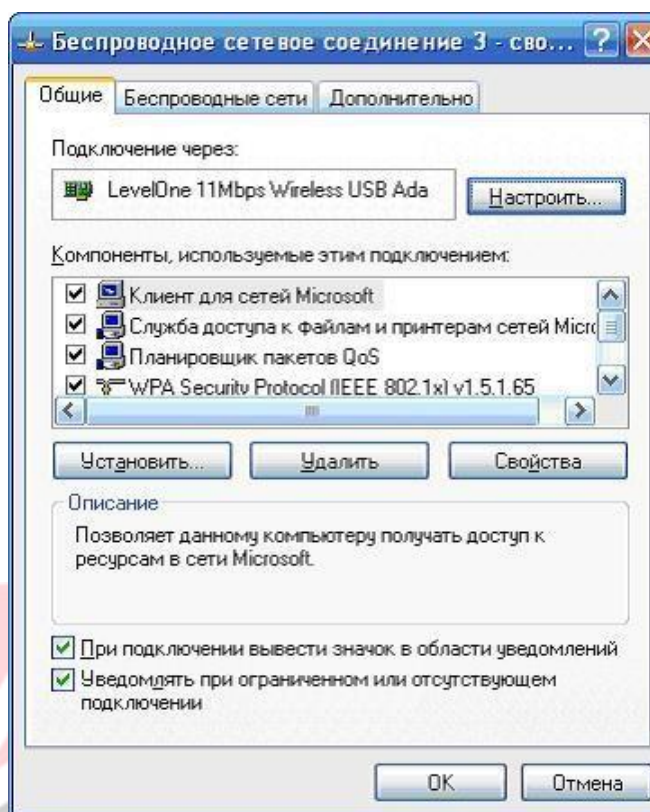
called simple and affordable. In our opinion, the easiest and most affordable way is to use two Wi-Fi adapters (Ad-Hoc connection) that work according to the 802.11b standard and provide an exchange rate of 11 Mbit/s, which is quite enough for normal operation [1].

First of all, for proper operation, you need to install the driver and utility for setting parameters and

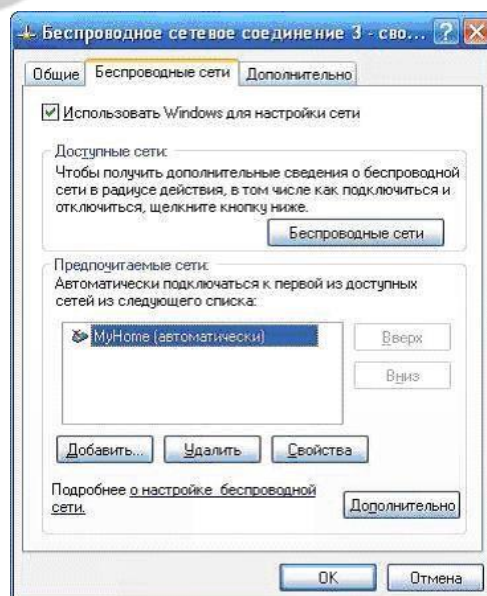
monitoring the connection, and only then connect the USB Wi-Fi controller Level One WNC -0101 USB. Let's move on to setting up the network. There are two ways to do this: through the IEEE 802.11b WPC Utility (USB) or through the use of standard Windows XP tools [3].



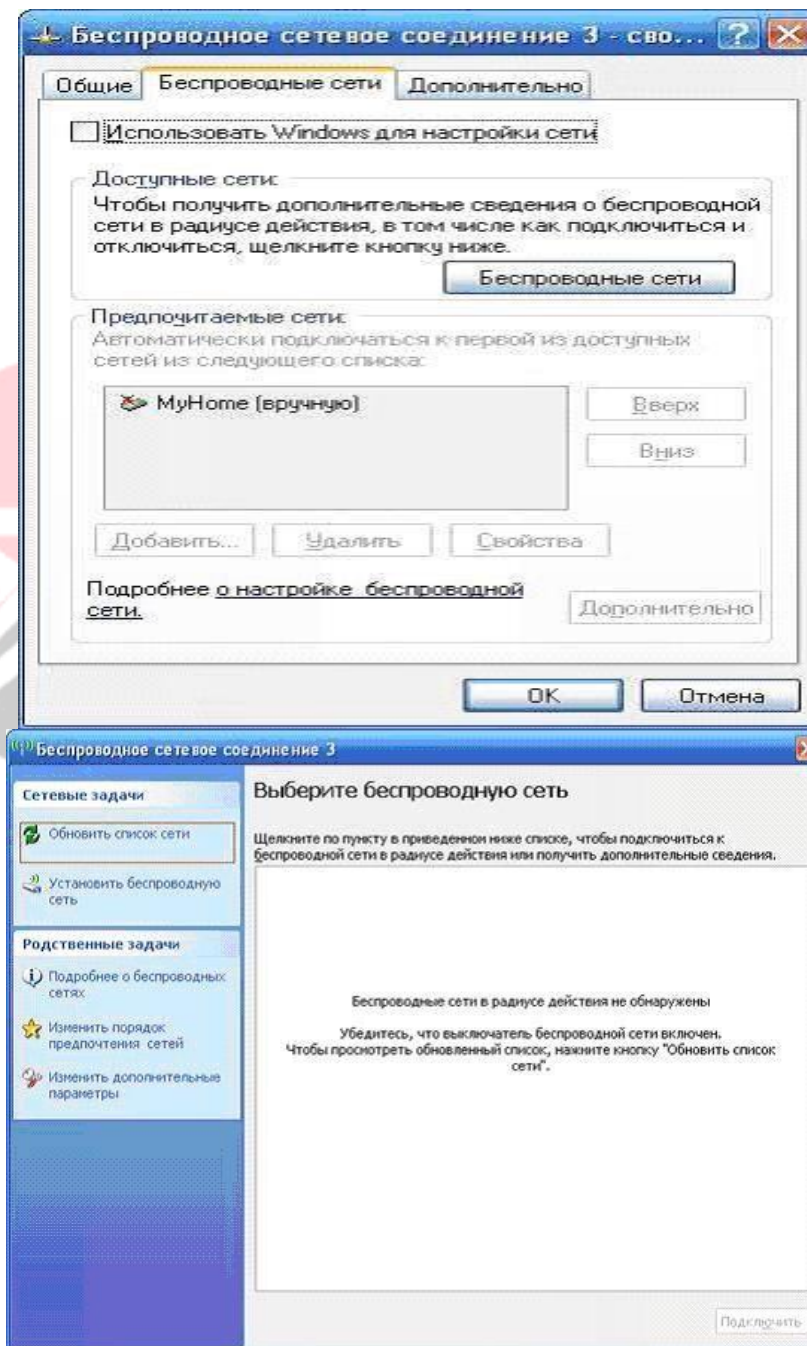
We open the properties of the network environment, which displays all the network connections available on our computer. Now open "properties wireless connection" of this connection, where we are interested in the second tab "Wireless networks". It is here that all wireless network settings will be carried out.



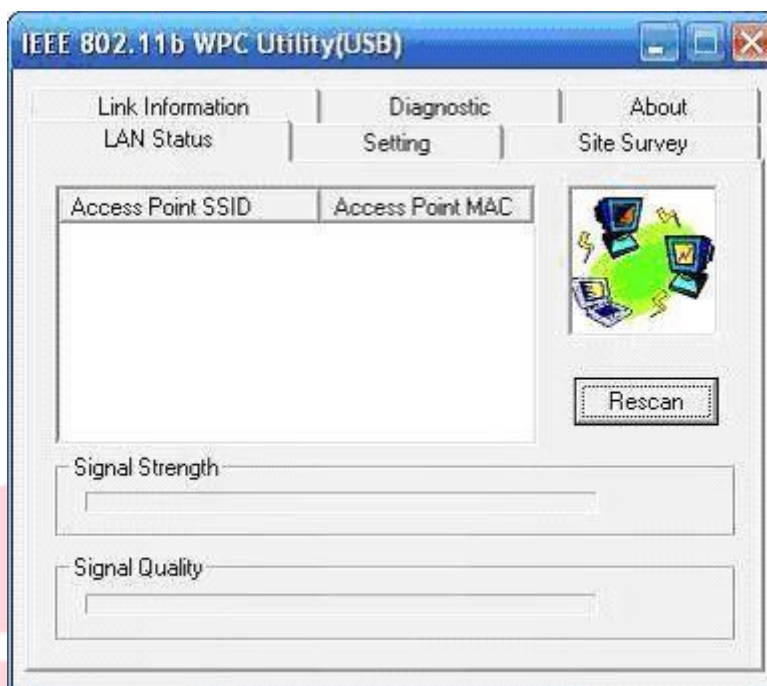
The option "Use Windows to configure the network" allows you to choose which tools will be configured. In the next step, we create a wireless connection by clicking the "add" button in the "Preferred networks" section, where you need to enter a network name, as well as set some special parameters that provide a certain level of security [2].



Windows XP tools allow you to create a wireless network using a special wizard available in the Available Networks section. To do this, click the "Wireless networks" button and in the opened wireless network manager, click the "Set up a wireless network" button. The main difference of this wizard is the ability to save the wireless network settings on a Flash disk, which greatly simplifies the transfer of the network configuration to other computers, but this feature is not relevant for a situation where you need to connect two computers.



The utility includes a slightly larger set of features than the Windows tools. There are six tabs here. The first tab "LAN Status" displays all wireless networks found around, and also shows the strength and quality of the signal.



This utility has a number of features, here you can create up to five profiles that allow you to quickly change connection settings. We create the first profile, initially you need to specify the network name (SSID), network type (AD - Hoc). The communication channel used and the country can be left without changes. Additional connection properties are available in the window "Advance". Here the user can select the transfer speed, power saving mode (important for laptops), as well as the encryption mode. This completes the first step of setting up your desktop computer and now you need to "configure" the wireless network on your laptop. On the laptop, go to the properties of the network connection, select wireless, launch the wizard and make a number of settings.

CONCLUSION

Thus, wireless networks are an alternative to wired local area networks, using radio air instead of wires. There are many options for connecting networks, and each user can choose the most convenient option, which is an important factor for systematizing work

and ensuring uninterrupted Internet access. It is important to note that wireless networks are the most modern and convenient type of local area networks, and therefore they are constantly updated and improved.

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