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# **ОСВІТА, НАУКА ТА ВИРОБНИЦТВО: РОЗВИТОК І ПЕРСПЕКТИВИ**

## **МАТЕРІАЛИ**

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**WIRELESS NETWORKING IN THE HOME****Putienko, O. M., student; Bulashenko A. V., senior teacher.;**

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Entering into any public institution, for example, in a restaurant or even in the home to one of your friends, often we get on the smartphone screen invitation to connect to the internal wireless network. The number of connected Internet devices is growing steadily, and in order for them to fully discharge their duties, it is necessary to provide a stable and fast Internet connection (Fig. 1).



Figure 1

Almost all low-voltage systems the modern home is commonly implemented on the basis of the network infrastructure, which in former times was used for sharing the printer and file sharing. And today, the network in fact, the possibility of data transmission technologies have no restrictions at all, you can make voice calls, video surveillance, testimony of the medical sensors, the interaction with the "cloud". Every month on the market appear new models of household appliances with the ability to control network – including refrigerators and washing machines. In such circumstances, the network becomes a critical element in determining the quality of the home environment and its level of implementation depends on the work of the variety of equipment is tied to network infrastructure.

Fortunately, for the understanding of IP technology the idea of how networks work in General and how to assess the client's network resources, including hardware. The preferred practice is a complete replacement of the carrier network on a separate, certainly workable.

To peat, you will manage the existing customer network with the additional load, consider a small example. For online viewing of TV shows in ultra HD resolution 4K/UltraHD requires a guaranteed data transfer speed of 30 megabits per second without taking into account traffic generated by other devices and processes in the home network. Such a dense stream of data must be ensured first of all at the ISP level of the Internet access, that is the appropriate method of connection and tariff plan. It is possible that a well-organized communication with the client in the initial phase of the project will allow to understand how his family uses the net.

Is there a part of network managed switch, capable of splitting traffic to the subsystems and to support the priority allocation of capacity resources in the interests of the subsystems of primary importance? If not, is it possible the installation of such a switch?

The network configuration of a managed switch allows you to set up a virtual LAN on a subnet (VLAN). This configuration allows you to control the use of resources of network bandwidth and user access to individual segments. In addition, virtual networks enable you to balance the priorities between the users and the segments so that more important information in any case had more opportunities through the network.

To convince the client to pay extra money for what, in his opinion, should be free to provide Internet service provider, very difficult. Considerations regarding the intricacies of Ethernet, for most customers, is something transcendent of the specific. However, to recognize that a network switch is a direct counterpart of the boiler and the gas column and therefore requires appropriate investments, most home user's refuses.

Many customers fear that the reasons the installer is some kind of "wiring". If you can not stand and surrender in the negotiation process, it will lead to that "divorced" would be the installer: often the number of calls to tech support calls and technician simply rolls over, and the thing is that the client's network is simply not able to withstand the load due to the work of the security system.

Verbal mention of the possibilities of networks in negotiations with clients in the General case is not enough, even if you are trying to emphasize the importance of these technologies. Here be sure to show your skills. The time for the mastery of the subject will certainly pay off, as IP is a universal language, which became the basis of network technologies. He will not die and will not undergo drastic changes in the foreseeable future.

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