ОСВІТА, НАУКА ТА ВИРОБНИЦТВО: РОЗВИТОК І ПЕРСПЕКТИВИ

МАТЕРІАЛИ

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VIRTUAL LOCAL AREA NETWORK IN A RESIDENTIAL AREA

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Consider a simple example of how within a single local area network deployed in a residential area can operate multiple virtual networks. The use of VLANs significantly increases the manageability of your home network.

This particular network is implemented using the split ports. To simplify the understanding of the Ethernet connection are grouped here by function. In real installations, each of the devices connects individually to the same network switch (Fig. 1).
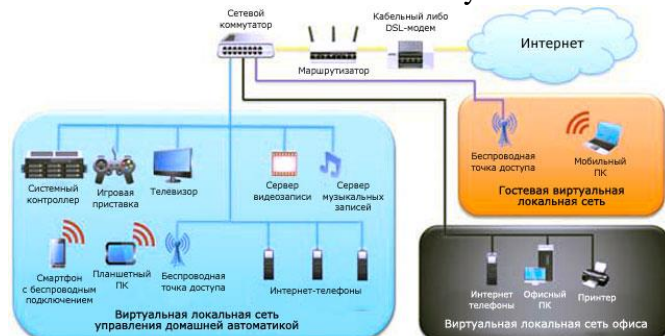

Figure 1

In Fig. 1 dedicated three separate virtual network. Within each of these devices can communicate with each other, but data is not come out. For example, guests who access the Internet are unable to access the devices that control home automation devices and office computers. Note that the "office" LAN carries control functions of all the home decision. That is, all the steps required to configure the network switch can be made only with the office PC.

Splitting these devices, the owner of the decisions is able to improve network performance by reducing the amount of data that is necessary to process each of the hardware components. Increases the security of the network. For example, guests are not able to use the internal network services and access in the office segment. Likewise limited and of the possibility of viruses and malware. And the network components are grouped on a functional basis were used to distinguish and prioritize types of network traffic depending on the importance of the task.

Realizing that for the decision of problems of the client it is necessary to use advanced technology, you should convince him: such a decision may incur additional costs, which should be at least clearly justified.

The system solution will certainly justify itself by the growth of both the household and its technical content. And incurred by the client costs can be a basis for a flexible, reliable and modern system based on network performance. Of course, if you have enough knowledge and skills to implement such.

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