

Wlan design and set up essay example

[Sociology](#), [Communication](#)



WLAN design and set up

Wireless local area network is mostly installed if the network administrator wishes to reduce the number of clients using wired network. This is also influenced by the number of devices such as laptops that have the ability to connect to a wireless network hotspot reducing the number of cables required to establish a complete network (James, 2004).

One of the main factors to consider while establishing any wireless network is network security. This is mainly ensured using network passwords and authentication information which is set by the administrator. Even though security measures are taken, the ease of hacking is also considered (James, 2004).

The basic steps of setting up a wireless LAN are:

1. Understand the network configuration. This helps you know the benefits of WLAN and the necessary equipment for setting up the network.
2. Plan the network. This step involves carrying out survey on the geographical area that the network is supposed to cover so as to be fully effective. This part also involves planning for the necessary equipment so as to fully set up the network. This also involves the architectural design of the network.
3. Implement the network by setting up the wireless network. Setting up the network involves the following steps.

Connect the router and configure it to the required range of broadcast. This is done with the router connected to the wired network through RJ45 connector. Configuring the router also sets the password and other security

levels of the network. Configuration is done using a computer in which the router software is installed.

Disconnect the router from the computer. The router is ready for the wireless broadcast. Place the router at a point where it will communicate directly with the intended hosts so as to ensure maximum connectivity (line of sight communication works best for high frequency transmission and wireless transmission uses frequencies of above 0.8 GHz).

Test the network using a notebook with ability to detect the wireless network. This will assess the connectivity and security level of the network. Testing should be done at close range as well as long range to ascertain that only the intended clients are served by the WLAN.

4. Use the wireless network. This is the step that most of the clients are and is usually taken as a normal function. This step helps analyze the daily operation of the network and enable the last step.

5. Maintenance of the network. This ensures that the network is robust and not easily hacked. This step is mainly carried out by the network administrator. (James, 2004)

The most important steps are steps three and five. If a mistake occurs in step three and the security of the network is compromised, then the whole network is very susceptible to hacking thus not suitable. Step five works closely with step three and ensures that the settings made in step three are maintained.

Activity 2

So as to set up the network, I conducted a site survey of the area in which I wanted to install the WLAN. This included finding the highest point of the

area to be covered, possible barriers to line of communication (direct communication) and radio wave interference.

On line sight communication, I noticed one building taller than the intended tower of transmission. This was however not on my area of interest thus was not a big consideration. Radio wave interference was negligible and mainly indicated levels of less than 1dB. This was done using a special radio wave interference meter. The attenuation level was also determined and indicated that attenuation was significant only at ranges of more than one hundred meters (airwisecommunity.

com/assets/documents/WLAN_Design_and_Site_Surveys. pdf).

James N. 2004. 5 Steps in setting up a wireless network, retrieved from <http://www.entrepreneur.com/article/71518>

[com/assets/documents/WLAN_Design_and_Site_Surveys. pdf](http://airwisecommunity.</p></div><div data-bbox=)