Senior Project

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Name Idea 2: OurSpectrumWiFi – Wi-Fi for all comrades

Now that I have a firm idea of my project idea, my next steps are to plan out the phases of development. I will start with a foundation and build from there. Although the only issue is figuring out exactly what is the foundation. Two starting points could be figuring out the best way to program the word list generator, either by parsing online dictionaries for memory/storage efficiency but this option will require an internet connection which will not be feasible in real world usage. The other option is to hard-code large lists of words, which will make it possible to use the tool offline but may limit the variety of words. The next possible foundation would be the scripting for unifying each Wi-Fi auditing tool via the command line interface. I believe that using Python as the language I will create the script in, because I am somewhat familiar with Python the only challenge will be understanding the correct libraries and syntax to use. By starting with each of these foundations it will be possible to build from them and complete the program.

Once the foundation has been established, it will be evident on where to begin next. The main process will be unifying the tools needed to run the correct processes in the correct order to complete the attack. Another issue I expect to encounter is reading the output from each tool, which will be needed to move on to the next step in the process of attacking the network.

In short, I believe the process will be:

1. Create the foundation
   a. Wordlist program
   b. Python scripting
2. Creating the Aircrack-ng suite process
   a. Each phase of the attack
   b. The desired responses from the tools
   c. The required commands needed to continue the process
3. Linking the Wordlist program and Aircrack-ng suite
   a. Running commands at the correct times using the Python script to successfully complete the attack
4. Test WARP tool / OurSpectrumWiFi tool on test network
   a. Using a test router with a pre-configured password
5. Test WARP tool / OurSpectrumWiFi tool on real world networks
   a. Travel around neighborhoods cracking as many networks as possible (but not doing anything illegal with it)