### sdmay18-15: Building wireless lab space on a college campus

Bi-Weekly Report 2 January 26th - February 9th

#### **Team Members**

Alec Sauerbrei — Curriculum Lead Colin Ward — Communications Manager Hope Scheffert — Documentation Manager Omar Taylor — Software Design Lead Tyler Much — Physical Design Lead Dalton Handel — Networking Lead

## **Summary of Progress this Report**

This reporting period was largely spend preparing the components for when they will be placed in the Faraday cage. The Raspberry Pis have been configured according to the network diagram, the cell phones have remote access capabilities, and a virtual machine has been made for the SDR so it doesn't need to be rebuilt every time it's used.

### **Pending Issues**

The SDR has a different firmware than it should already installed, so it will need to be flashed with new firmware. The team learned during the second week of the reporting period that a server has been found for the team to use, however it isn't accessible right now.

# Plans for Upcoming Reporting Period

The team is going to meet next to line the inside of the bin with aluminium foil. The plan is to use adhesive spray to get the foil to stick. Hopefully this will provide enough coverage for a long lasting bond. The team has also gotten the green light to reflash the SDR, so this will get forward progress.

### **Individual Contributions**

Team Member	Contribution	Week 1 Hours	Week 2 Hours	Total Hours
Alec Sauerbrei	Setting up Pi's to work with the described network diagram and set them up so we can work with them easier and quicker	2	3	8
Colin Ward	I set up and prepared for the presentation for the first P.I.R.M. Technically, I looked into wireless remote control of the two phones, and tested the application AirDroid. It's promising, it allows responsive full control of the device. If the team decides to move	2	4	10

	forward with it, we will eliminate the need to run USB cables out of the Faraday cage. I took on the responsibility in the second week to write the curriculum for the "Packet Sniffing" and "M.I.T.M Attack" labs. The majority of time in the second week was dedicated to looking at past packet sniffing labs I've done and seeing how I can emulate the format in our own labs.			
Hope Scheffert	Helped Alec with setting up the pi's. Started researching email server on the pi. Created python script to log in to Facebook. Created little experiment with HTTP/HTTPS password sniffing using Wireshark.	2	3	9
Omar Taylor	Built OpenBTS on Virtual Machine, being sure to document my process. Assisted in finding an efficient method of sharing the completed virtual machine. Troubleshooted SDR and found that it will need to be reflashed with new firmware in order to continue working with it. Got a confirmation from Julie and Doug to go ahead.	6	5	15
Tyler Much	Worked on ideas for the design of the interior layout of the faraday cage. Considered different materials for the base. came up with additional required material for the cage Helped develop curriculum ideas, provided instruction for where to proceed with software development. Identified deliverables for the next meeting in regards to hardware set up and script completion.	3	2	9
Dalton Handel	Researched bridged adapting for interfacing VM through host ports to SDR. Read up on use of OpenBTS CLI. Contacted Doug regarding reset of SDR and awaiting response.	4	2	11