sddec18-07: Software-Defined Moving Target Defense
Week 2 Report
January 29 – February 2

Clients: Dr. Benjamin Blakely and Joshua Lyle (Argonne National Laboratory)
Faculty Advisor: Dr. Hongwei Zhang

Team Members
Andrew Thai — *Project Manager*
Connor Ruggles — *Quality Assurance*
Emily Anderson — *Delivery Manager*
Ryan Lawrence — *Communication Manager*

Weekly Summary and Accomplishments

We researched using Open vSwitch as our standard for where packets will be directed. We installed XenServer because the hypervisor supports Open vSwitch as their switch protocol and we are currently working on developing a game plan in using XenServer to configure a controller for the Open vSwitches.

Summary of Weekly Client/Advisor Meeting

We did not meet with our client or advisor this week.

Pending Issues

The project is still mostly research-focused, however the research we have gathered to this point and over the next week will allow us to test more physical things locally.

A large issue with Open vSwitch and the other networking tools is that in order to create a network to test on, we would need to nest virtual machines inside each other, which is just not feasible with our personal machines.

More testing will be necessary to figure out how we are going to set up a test environment.

Plans for Upcoming Week

We have distributed sections of our project plan to team members and will continue to work on that throughout the next week

We will keep researching and testing Open vSwitch and XenServer so we can finalize the platform we want to use, while attempting to overcome the issues we have found with running them on our personal laptops

Define a Network as a test subject

Learn about NMap and how to detect scans

Individual Contributions

Team Member	Contribution	Weekly Hours	Total Hours
Andrew Thai	Worked on creating virtual machines to plan out possible networks. Read research papers of SDNs and MTDs.	6	12
Connor Ruggles	Worked on investigating systems that we could use such as Mininet. Read research papers of SDNs and MTDs.	6	12
Emily Anderson	Worked on creating report templates for the semester and timeline for things that need to be done. Read research papers of SDNs and MTDs.	6	12
Ryan Lawrence	Worked on setting up weekly meetings. Did research into MTDs and looked at the different platforms that were given.	6	12