

In this project, I learned much about network security and topology. I was able to understand the practical nature of network rules using the network security groups being built from the ground up. Further, the creation of network rules led to recognition of an almost “equal and opposite” relationship with inbound and outbound rules (rules are almost always 2-way for proper connectivity). The concept of reducing hijacking targets by creating front-facing systems was reinforced through the implementation of a jump box and load balancer.

With the installation of containers on the virtual machines, I was able to better understand both virtualization and logging systems. Docker installation is somewhat straightforward, but the idea of virtual service to be implemented or turned off when needed makes great sense. Accessing the services through TCP was also clarified thanks to the DVWA and Kibana setups, allowing home access to these services through DNS browser connections in the specific ports. Overall, this provided a better understanding of networking as a whole as well as introduce cloud services in an engaging manner.