How would I control access to a cloud network? I would control access to a cloud network in a few steps. Each step I would take was taught to me in my Cybersecurity bootcamp. Creating a cloud network and hardening it was my first project through the course. I will not only go over my steps but relate said steps to my own experiences.

The first step would be to create a Jump Box. The Jump Box would be the only VM that has access to the web servers and the elk stack. By doing this there would be limited access to the cloud network and less chances for error. The Jump Box would only be able to be accessed by certain users. To ensure this I would use a specific IP address and a SSH key. I had to do this with the cloud network I deployed. I created a public key on my host computer. I then used said public key and my host computer’s IP address to create a secure and personal access to the Jump Box. This was implemented though an inbound security rule I created within the Jump Box. Going through this first step made sure that only I could access the cloud network.

Continuing after the Jump Box, there needs to be a network security group. The network security group is going to act as a firewall by implementing an allow and deny list. This list will prevent unwanted IP addresses from accessing the cloud network. An example would be the security group I created. I opened up port 80 and port 20 throughout my cloud network. To secure the ports I denied any access from an IP address that wasn't my Jump Box. I also created a ssh key as a password that was unique to my Jump Box.

The problem that can be foreseen by this method is if the employee with said access is let go or maybe the host machine is destroyed, if this were to happen you would lose all access to the network. A solution would be to have multiple admins to control access. When one admin is gone the others can update the cloud as needed. This would still limit access and keep minimal errors from occurring.

These are the steps I would take to control cloud network access. A Jump Box with access to the cloud network, which can only be accessed by a select few, and a network security group. A firewall system that will deny and allow specific IP addresses.