## **HAProxy**

Load balancers are essential to keeping services online. Especially services that have high levels of demand. In this lab, you will configure HAProxy to serve as a load balancer in front of two simple web sites.

## ToDo

Using your vCenter environment, you'll create a web cluster with a load balancer.

## Web Servers

- Create two new Windows Server 2019 VMs (from your template if you have them)
  - o Name them Web01 and Web02
  - o Assign IPs 10.1.1.21 and 10.1.1.22
  - o Join them to Active Directory
  - o Install IIS on each
- Create a Linux machine to install haProxy
  - o The latest Ubuntu Server works great
  - o You can download your Linux ISO from anywhere, but <a href="http://repo.ialab.dsu.edu">http://repo.ialab.dsu.edu</a>
  - o Assign an IP address of 10.1.1.20
  - o Install haProxy on your server
- Configuration
  - Replace the default webpage in IIS with basic text indicating which server is which (I used the text "welcome to web01" and "welcome to web02")
  - o Configure haProxy for round robin load balancing of each web server
  - o Ensure you can access your web servers by visiting the load balancer's IP
  - Reconfigure your firewall to forward port 80 from your WAN interface to the IP address of your load balancer

## **Submissions**

- Submit two (or one, in a single window) screenshots showing that each web server is up and running its unique page (ex: browsing to <a href="http://web01.domain.lan">http://web01.domain.lan</a> and <a href="http://web02.domain.lan">http://web02.domain.lan</a>)
- Submit a two screenshots showing that you are able to access your web servers by visiting your public IP address. Refresh or use a different browser until you're able to show both pages.
- Submit a single screenshot of your haproxy config
- Submit a single screenshot showing that your firewall is configured to forward http traffic to your load balancer