Abstract

MAAS is a virtual and physical deployment server that could become a key tool for future education at Champlain College. Deploying this software could give the professors and staff behind Cyber.Local a new tool that allows them to better customize and automate the deployment process that enables them to give us VMs in class. This capstone project will demonstrate the installation and uses of MAAS as well as research its capabilities to see if it is a right fit for what the College needs. Therefore there will be opportunities to explore new types of technology in the curriculum as well as an easier process for deploying new boxes to students

Problem

The process of server provisioning can be cumbersome, time-consuming, and tedious. At Champlain College, the ITS department is constantly needing new systems provisioned, mostly virtual machines. Currently, this is done using a tool called FOG, however, FOG does not make this process a seamless one. With the number of virtual machines needed, this process needs to be efficient so as to not waste the professor's time.

Purpose

The purpose of this capstone project is to research a tool called MAAS. MAAS allows for very efficient virtual machine provisioning, as well as being able to provision bare metal machines. Another very important feature is being able to automate the configuration of the machine post-deployment. The researchers will compare MAAS and FOG to see which is more efficient and possibly replace the current system in place for provisioning servers.

This capstone will allow the researchers to take a deep dive into MAAS, learning all features that MAAS offers. It will also allow the researchers to learn about automation with tools like Juju and ansible, both of which are used heavily in system administration.