

### **Elevator Pitch: Automated DDoS Protection on the NetVM Platform**

This project will build a high-performance Distributed Denial of Service (DDoS) protection system on the commodity Linux servers commonly found in datacenters. The target customer for this product is a business that maintains one or more highly-available services (such as a website) and needs a method of protecting their service(s) from DDoS attacks. Other companies would invest in specialized networking hardware to deploy to their network; this customer needs a more cost-effective solution that allows them to purchase just enough capacity and scale up as necessary.

The system produced by this project fits the target customer's needs exactly. The system runs on commodity x64 Linux servers; the customer already has many of these running their business critical applications. Because of this, the customer already has the expertise needed to provision, deploy, and maintain these servers; there's no need to train employees on a new technology. The system is also horizontally scalable; this means that the business can adjust the system's capacity by adding or removing servers.

Two key innovations of this system are its flexibility and familiarity. The system can be easily deployed and upgraded using a process similar to that of any other program running in the target customer's datacenter. This means the system administrators employed at the datacenter will already be familiar with the basics of the system. The main innovation for this system, however, is the performance; using modern CPUs and the high-performance networking platform NetVM, the system will be able to process packets at line rate (typically 10Gbps) and use 100% of the network bandwidth provided by the server.