Linux Systemd Service

By using the systemd program on a linux machine, I would be able to make the program run automatically when a computer is booting up, meaning that the command and control server would automatically start without having to be ran.

This is done very easily by creating a service file that just runs the command and control server program.

An advantage would be if the IOT device is a linux device then the command and control server could be hosted on the IOT device itself.

One obvious disadvantage is that this is platform dependant with Linux, however the source code for the server would still be portable.

Windows service

Using C# and visual studio you can create a service that you can load into windows that can also automatically be set to run when the computer is started.

Big disadvantage is the code would then need to be ran in C# which isn’t very portable to other systems that don’t run windows.

User-ran programs

Another solution is to create the source code for the program using portable code like java that can be run on many different systems. The disadvantage for this solution is that the user would have to log on to run the server software and it wouldn’t run automatically.