<u>IoT Watchdog:</u>
<u>Enabling Simple, Secure Management of IoT Devices on the Home Network</u>

With each day that passes, more and more objects for our homes are becoming "smart". Whether it's the security camera in the nursery, the washer that can send a notification when our clothes are clean, or your home's front door that automatically unlocks when you're within proximity, these devices (commonly referred to "Internet of Things" and herein "IoT", since they're now connected to the internet) add convenience to our lives that hasn't been experienced before. But this newfound convenience and connectedness comes with a price many aren't aware of until it's too late: increased surface area for attackers to exploit vulnerabilities or misconfigurations to serve their devious motives, whatever they may be.

Ask yourself this question: Would you set up camera in your home that broadcasted audio and video of your private conversations to the world? Most users asked this question would object. Imagine being in a room with one of these "public" cameras while paying a bill over the phone with a debit card. In this scenario, the victim has an expectation of privacy, such that the camera cannot be seen by outside viewers. But due to either the camera implementation or default configuration, it is effectively "public", likely resulting in financial pain and other resulting burdens.

But, there's hope. In addition to the IoT devices that general population is adding to their homes, they also increasingly carry smartphones. While smartphones are primarily used in the general population for social connectivity, these devices are the perfect platform to enable users to take ownership and responsibility of their home network security.

With effectively zero technical expertise required, users of smartphone app "IoT Watchdog" are able to simply and proactively manage their IoT devices with minimal effort. Users who take advantage of the app are able to run a scan their Wi-Fi and Bluetooth networks to automatically identify and inventory connected devices. Users are also able to easily analyze installed versus latest available software for their IoT devices and receive assistance in updating the device should one be required. Users, at their discretion have the ability to receive recurring analyses of their IoT implementations at desired intervals once inventoried.

With user authorization, the app can also scan the local network configuration to find and alert the user of configuration issues on the main internet connection point (typically the router). If desired, the user can initiate a scan against inventoried devices on the local network to check for default or weak passwords. Additionally, using what the app knows about the devices inventoried and their known implementations and configurations, the app can scan the home network from the public internet to see if it can find a way in.

Using IoT Watchdog is simple. Those who choose to take advantage of it will experience peace of mind knowing that should there ever be an issue that needs to be brought to their attention regarding an IoT device on their home network, IoT Watchdog is standing guard and ready to alert.