Detecting the passive Wi-Fi pings of a population’s cellular devices 5 Squared hopes to provide statistical data on the movement and location of individuals throughout a city. Using this data would allow a council to more effectively spend funds on projects and ideas, distinguish areas that need improvement and gauge the effectiveness of resources that have been spent. This information could also be made available to emergency services in the case of a disaster to give an idea of how many people may be affected.

Discerning where a council should spend its rates is often a difficult task and can be quite divided. With potentially live data available to it, a council can determine where the populace spends its time and how and where people move around the city. Using this they can predict what the likely usage of a new feature would be with the current amount of people that pass through an area and supply an appropriate amount of funding.

After a project has been completed and some time has passed statistics can be generated to determine its effectiveness. Depending on how the network has been implemented this could show the reduction of congestion of a road expansion and the average time saved by a person commuting along it. If a new landmark was created, it could show how many people pass it each day or if the city’s mall was improved it could show how many more people now visit it. This data upon review could then be used for future decisions within that city, or if it is shared other cities could use it to improve their own.

Determining the number of people affected by a destructive event can be a difficult process, especially immediately after the incident. Providing emergency services with data estimating the number of people in an affected area could be a major boon to how services are dispatched especially if incidents are not contained to just one area of the city.

The method 5 Squared intends to solve these issues is with the distribution of hundreds or thousands of small Wi-Fi detecting modules spaced throughout an urban area that determine how many devices are nearby. The information from all these devices is then collated and processed to show where the population goes and how the city’s citizens use public resources.

Each unit would feature a small processor, some memory and a WIFI module. Power would be provided through a standard RJ45/CAT5 connector. The enclosure for the chipset would be as small of a form factor as possible to not draw attention to itself. Two versions of the case would be available, an indoor variant that is to prevent accidental damage to the unit and an outdoor one that is weather proof and is paintable. Both versions will have mounting options so that they may be affixed to surfaces easily.

5 Squared believes this technology could help save a city a considerable amount of money over a period of time through more responsible spending resources. The ability to determine areas that need improvement could be instrumental in decisions for future planning of the city. And the ability to supply relevant information to emergency services could help save lives.