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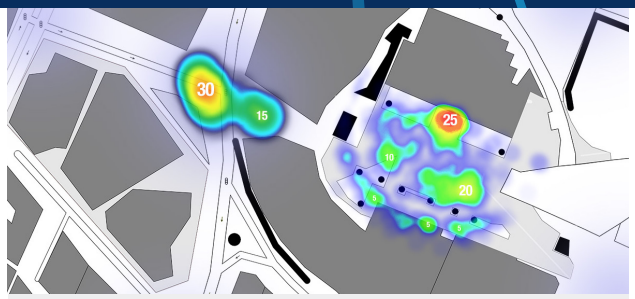
NEC

Smart City Solutions
A solution for implementation on the Kite platform

Pedestrian Mobility Tracking

Solution available mid 2017



Target Sectors

- Local and Central Government
  - To assist with Planning and Design
  - To assist with Civil Defence activities
- Transport
  - To assist with Planning and Design
- Retail
  - To make decisions on promotional activities
- Property
  - To assist investment decisions

Challenges

- No accurate data on pedestrian foot-traffic through primary transit points
- Directional movement of foot-traffic unknown
- Pedestrian movements during major disaster unknown, e.g. earthquake, tsunami

Solution

- Situational awareness map indicating real-time crowd counts and flows
- Provision of real-time information to the right people enhances informed decision-making
- Availability of data for asset managers, local retailers, property managers, tourism operators and other stakeholders

What is Pedestrian Mobility?

An important aspect of people flow management is gathering an understanding of the counts and flows of pedestrians throughout important areas of the city.

Obtaining data on the number of people moving through certain chokepoints and the street flows of those people enables us to manage city safety, asset management, public transport, retail and tourism more effectively.

Pedestrian Mobility Tracking Solution

NEC has developed Pedestrian Mobility Tracking to accurately understand people flows. Combining a range of sensors and analytics techniques, Pedestrian Mobility Tracking provides a real-time calibrated count of people moving through critical chokepoints in the city.

A specialised people-counting sensor provides a calibrated count, while people-tracking sensors provide an indicative count of people moving through a chokepoint. This indicative count also provides an understanding of the direction people are moving in once they've passed through the chokepoint.

To ensure people are not identified, the system applies an anonymous data tag to the moving person and compares that with the count moving through the chokepoint. The solution also leverages a complex algorithm, ratio analysis and predictive analytics to understand the count and directional flow of people. This analysis also compensates for any irregularities, such as people moving through the chokepoint quickly and in large groups.

Enabled by Kite

The key enabler to this solution is NEC's Kite Flexible Sensing Platform. The people-counting and tracking sensors are connected to a 'Kite Mote' which wirelessly sends the collected data to a nearby Kite gateway. The Kite gateway then backhauls the data to the Cloud City Operating Centre and then on to relevant parties' control management systems. The Kite allows rapid deployment of the Pedestrian Mobility solution in other locations of interest without restrictive civil engineering and communication costs.

For more information, visit au.nec.com, email contactus@nec.com.au or call 131 632

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