

The logo for GadgEon, with 'Gadg' in blue and 'Eon' in orange, set against a background of a modern glass skyscraper and a bright sky with clouds.

**GadgEon**

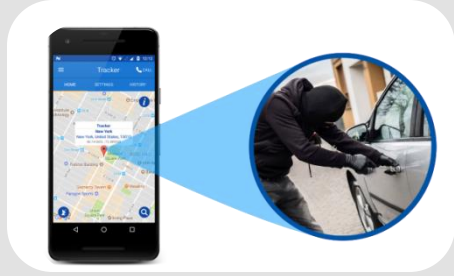
Engineering Smartness

# VEHICLE TRACKING APP

April, 2020

Version 1

# Android App for Vehicle Tracking



A vehicle tracker device company based in US needed an intuitive Android App for its users. The App communicates with a tracker device installed in the vehicle to provide timely alerts during an emergency or safety threats. App allows the user to take actions while being away from the vehicle.

## Solution Description

- The tracking device is a microcontroller based system installed in to a vehicle with a cellular modem.
- The device communicates with owners' mobile app through text message and or calls. This also can enter in to a 3 way call with 911 personnel in case of a theft situation.
- A configuration wizard has been developed as part of the mobile app which allows configuration of the tracker and alerts
- On detecting an alert condition like theft or towing, the tracker alerts the user via text messages.
- The app will create notification alarms depending on the type of message to alert the user with details location of the vehicle etc.

## Outcome and Benefits Delivered

- Delivered a low cost, user friendly Android app for remote vehicle tracking via GPS locations
- Communicates alerts and status via text messaging.
- Easy location identification of the car in vast parking lots
- Support a 3 way call to emergency services in case of theft situation
- Alerting emergency contacts automatically in case of emergency
- Complete test automation scripts to test the application in 12+ different OS/Phone combinations
- Privacy of the customer is not compromised, by not sharing the data to any server



# The Business Context and Challenges of the Customer

- Our customer was a start up company developing tracker units for vehicle safety. The tracking device is a small unit installed in a vehicle with built-in cellular modem. Tracker communicates with owners' mobile app through text messaging and calls.
- Due to market demand, customer wanted to provide an Android application for users for easy configuration of the device and more user-friendly alerts and notifications.

# The Solution / System Description

## Android Application

Our team developed an Android app with following features :

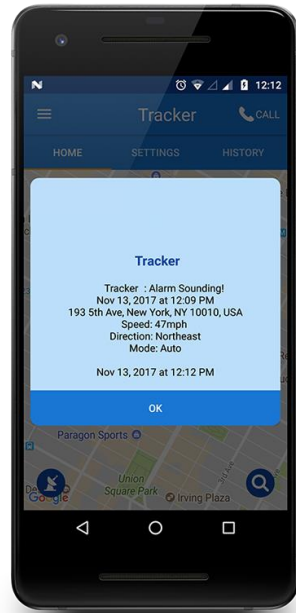
- Configuration wizard feature allows configuration of the tracker and alerts
- On detecting an alert condition like theft or towing, the tracker alerts the user via text messages. The app will create notification alarms depending on the type of message to alert the user with details location of the vehicle etc. The App has user friendly interface like alerts being displayed on map etc.
- In case of an emergency user can make a call to the tracker and based on users input tracker will connect to the nearest 911 emergency services for immediate action.

## Test Automation

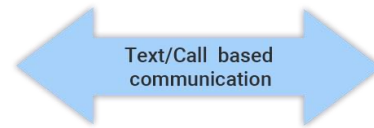
- The application was tested using automation test scripts.
- Test script development was done using robot framework and Appium
- Test automation delivered benefits like:
  - Improved efficiency of testing by saving time
  - Enabled parallel execution on multiple devices like testing on 13 devices with different OS and vendor combinations.
  - Ease of incremental development since automation made regression testing easy



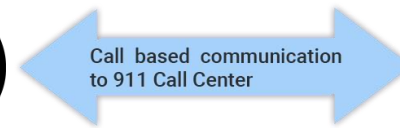
# System Description



Owners App gets notifications on events



Tracker device alerts owner using text messages

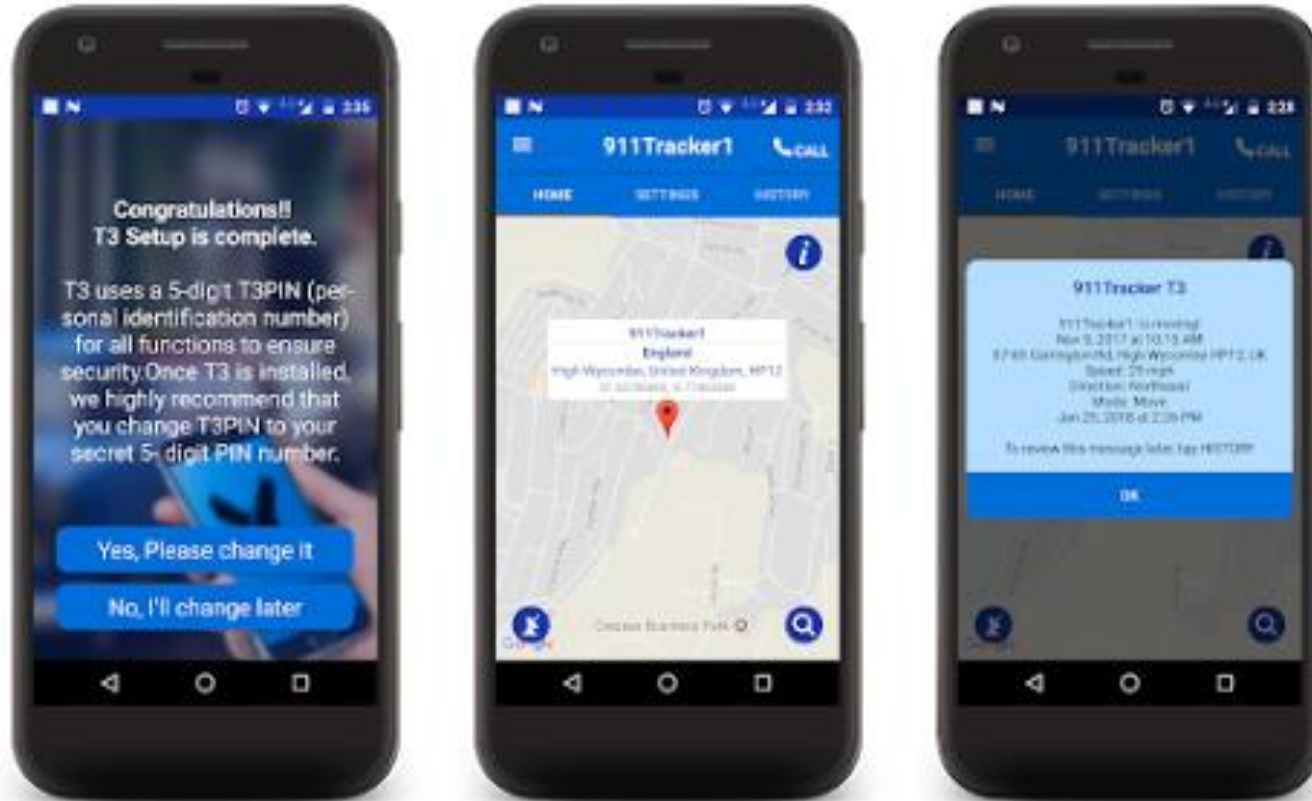


911 control room gets involved on owners request and gets details of vehicles location



# Solution Details

[https://play.google.com/store/apps/details?id=com.tracker911.t3&hl=en\\_IN](https://play.google.com/store/apps/details?id=com.tracker911.t3&hl=en_IN)



**THANK YOU**



**For More Details, Let's Connect**



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