**3.A.2 Hardware Interfaces**

TrackMe is developed collect individual user’s health and location data. It is connected to smart devices by exploiting APIs provided by smart devices. It requires a smartphone which is connected to smart devices. Also, in order to connect smart devices users should turn on their Bluetooth.

**3.A.3 Software Interfaces**

TrackMe uses external software interfaces to retrieve location data from users and to show this location on map.

* **Location and Map Services**

Application needs to access to the individual location and show the location on map. In order to access users’ location GPS services are going to be used. User’s device’s GPS services should be turned. In order to show location on map there are various options such as Google Maps, Microsoft Bing Maps, Yandex Maps etc. System is going to use one of these services. In design process it’s going to be decided which of them is more appropriate to use.

**3.A.4 Communication Interfaces**

There are mainly two external communication interface that system uses. One of them is exploited to retrieve data from user’s smart devices and second one is used to send SOS notification to the third parties who are AutomatedSOS users.

To retrieve data from smart devices TrackMe uses APIs which are provided by smart devices. These APIs may be published as a web service or RestAPI. Our system should exploit interfaces which are provided in both cases.

To send SOS notification to AutomatedSOS third parties, third parties should provide us an API to send health and location data of individual when health values exceed threshold values.

3.D Design Constraints

3.D.1 Software Compliance

* Application requests only access to location and health data.
* Application run normally when installed on SD card.
* Application continue to run in background to retrieve data when it is closed by user.
* Data is sent to cloud to be used in possible future requests in every 4 minutes.
* AutomatedSOS

3.D.3 Any other constraints

* **Regulatory Policies**

After 25 May 2018 Global Data Protection Regulation (GDPR) is started to be implemented. GDPR is a regulation in EU law on data protection and privacy for all individuals within the European Union (EU) and the European Economic Area (EEA). The GDPR aims primarily to give control to individuals over their personal data and to simplify the regulatory environment for international business by unifying the regulation within the EU. Since our system is built upon the idea of collecting individuals data, TrackMe should be align with GDPR and should notify users about their data privacy.