2.C User Characteristics

The following actors are users of this application:

* Individual Users:

A person who is registered to TrackMe and can use TrackMe’s offered individual services such as data sharing. There are four services that is offered by TrackMe and can be used by individual users. These are:

* + Data4Help Service: is the main service of TrackMe and every individual user can exploit. There is no extra operation to use Data4Help service. User signed up TrackMe can use Data4Help service directly.
  + AutomatedSOS Service: is the health check service which is provided only for the users who enabled it. After registering to TrackMe user must take special action, enabling, to use this service.
  + Track4Run Runner Service: can be used by TrackMe users who registered a running organization as a runner. TrackMe user can register organization by entering Organization Code. User shares him/her location to third parties or spectators who registered to service.
  + Track4Run Spectator Service: can be used by TrackMe users who registered a running organization as a spectator. TrackMe user can register organization by entering Organization Code and follow runners’ location.
* Third parties:

A party that is registered to TrackMe as a third party and can request and retrieve data of individual users’ (specific users’ or anonymous) data. Third parties can use three services of TrackMe. These are:

* + Data4Help Service: can be used by third parties to request anonymous or specific data of TrackMe users. After enrolling to TrackMe third party can use this service directly.
  + AutomatedSOS Service: is used to track individual user’s health status and dispatch SOS service to user’s location in case of emergencies. Third parties must register this service to use it.
  + Track4Run Service: Third parties who enrolled this service can define path of running event and follow location of runners in the organization.

2.D. Assumptions, dependencies and constraints:

2.D.1: Domain Assumptions

Data4Help:

We assume that:

[D1] – Individual users have an active smart device.

[D2] – Smart devices used by individual users can monitor following features; location, heart rate, EKG, blood pressure, fall detect.

[D3] – Smart devices used by individual users provides an interface to retrieve health and location data.

[D4] – Each individual user has a valid SSN or Fiscal Code.

[D5] – Each individual user enters valid and correct information while registering.

[D6] – The health and location data provided by smart devices is accurate and real-time.

AutomatedSOS:

In addition to Data4Help’s assumptions we assume that:

[D7] – Third parties have as system which receives notification from AutomatedSOS and can dispatch ambulance to requested location.

[D8] – Latency of sending SOS notification to third party is less than 3 seconds.

[D9] – Network reliable and available.

[D10] – There are threshold values which are defined by a health organization.

[D11] – Individual users never turn their data acquisition devices off.

Track4Run:

In addition to Data4Help’s assumptions we assume that:

[D12] – Path defined by organizer is valid and accurate.

[D13] – Location services of runners are available and accurate during run.