

RoomMe Developer API

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Introduction

RoomMe by IntelliThings is the first smart home Personal Location Sensor (PLS) that leverages patented presence sensing technology to make room-to-room, person-specific smart home automations a reality. RoomMe is not a replacement for existing smart home systems—instead, it exists as an additional layer over the installed smart home devices. By identifying the person in the room using the unique Bluetooth signature of a matched smartphone, RoomMe adds a layer of intelligence that is lacking in smart home devices—the ability to sense who is and isn't in each room to create and trigger personalized smart home scenes based on identified room location of specific people.

We recommend viewing these videos to better understand how RoomMe operates:

[How RoomMe Works](#)

[Sensor Positioning Explained](#)

The RoomMe Developer API enables developers to take advantage of the room level presence information provided by RoomMe to develop their own personalized products, services and apps, that personalize themselves to the people in the room.

Enabling RoomMe API

RoomMe API is enabled by defining an External Link component on the RoomMe App. Once the External Link is set, the app starts sending HTTP based updates to the set server address.

To enable during the initial setup of RoomMe:

1. At Smart Device Definition stage of the setup, select “External Link”. And click Next.
2. In the Remote Address field, enter the IP address / Hostname of the server where RoomMe will send room location updates.
3. Click SAVE.

To enable the API on an existing RoomMe setup:

1. Go to Settings -> Smart Devices.
2. select “External Link”. And click Next.
3. In the Remote Address field, enter the IP address / Hostname of the server where RoomMe will send room location updates.
4. Click SAVE.

Note: If the API is enabled on an existing system, you'll need to re-install RoomMe on all family member's smartphones (except for the admin's phone on which the External Link was defined).

Changing the Server IP / Hostname

1. Go to Settings -> Smart Devices.
2. select "External Link". And click Next.
3. In the Remote Address field, enter the new IP address / Hostname of the server where RoomMe will send room location updates.
4. Click SAVE.

RoomMe API

The RoomMe API is a simple one-way API interface. Each message is sent as an HTTP Post to the address defined in the External Link on the RoomMe app. The payload itself is a json object.

There are 2 types of messages

1. Events
2. Database Updates

Events

Events are Sensor (PLS) initiated updates to the RoomMe app that trigger updates via the External Link interface.

The payload is a json object. In all events, the type field is "Event". In addition, the packet holds the User Id and Name, the Room Name and the Sensor Id from which the event was generated.

The field 'event' holds the event type and additional information relevant to the event.

ROOM ENTRY EVENT

The room entry event is triggered in two cases:

1. When the PLS identifies entry of a known user (smartphone) and connects to the RoomMe app on the smartphone to update it with the current room location. The event information name is "RoomEntry" and "InControl" indicates whether the user has control priority over the room.
2. When the PLS identifies that the user who used to control the room left the room, it connects to the RoomMe app on the smartphone of the user who's now in control. The event information will be the same as in case 1, but "InControl" will now be set to true.

```
{
  "type": "Event",
  "userId": 0,
  "userName": "Joe",
  "roomName": "Living Room",
  "sensorId": "98072D0B9B72",
  "event": {
    "name": "RoomEntry",
    "inControl": true
  }
}
```

User Id – Numeric value from 0-31 | inControl – Boolean (true/false)

ROOM EXIT EVENT

The room exit event is triggered when the PLS identifies that the user moved to another room entered another room with a PLS). The "lastInRoom" flag tells if there are no other users in the room. You'll want to consider this information when deciding about exit related operations, in case that there should be a different behavior when there are still people in the room vs when the user is the last person in the room.

```
{
  "type": "Event",
  "userId": 0,
  "userName": "Joe",
  "roomName": "Living Room",
  "sensorId": "98072D0B9B72",
  "event": {
    "name": "RoomExit",
    "lastInRoom": true
  }
}
```

lastInRoom – Boolean (true/false) was this phone the last one in the room.

POWER UP EVENT

After a PLS boots up, it sends a power-up message to the RoomMe app on the first user (smartphone) that enters. Power-Up events happen after battery replacement, a firmware update or a physical reset.

In the power up message you can find the PLS firmware version.

```
{
  "type": "Event",
  "userId": 0,
  "userName": "Joe",
  "roomName": "Living Room",
  "sensorId": "98072D0B9B72",
  "event": {
    "name": "PowerUp",
    "version": "1.9"
  }
}
```

LOW BATTERY EVENT

A low battery event is sent when the PLS battery voltage drops to a certain level, indicating that the batteries need to be replaced. The low battery event will be sent one to each known smartphone.

```
{
  "type": "Event",
  "userId": 0,
  "userName": "Joe",
  "roomName": "Living Room",
  "sensorId": "98072D0B9B72",
  "event": {
    "name": " LowBattery",
  }
}
```

Database Updates

Database updates enables you to get the information about users, user types, rooms and sensors as they are defined in the RoomMe system.

Whenever the RoomMe admin performs changes to the system, it goes through a sensor update stage, moving around all rooms and uploading the database to the sensors. During this process, the list of users and rooms is also pushed via the External Link interface.

The packet contains type “Database”, and array of users and an array of rooms. Each user has User Id, Name and Type (Child/Parent).

Rooms have Name, Sensor Id and the defined Room Master of the room (the user who has top control priority for a room), if a room master is defined.

```
{
  "type": "Database",
  "users": [{
    "userId": 0,
    "name": "Joe",
    "userType": "Parent"
  }, {
    "userId": 2,
    "name": "Shahar",
    "userType": "Child"
  }],
  "rooms": [{
    "name": "Living Room",
    "sensorId": "98072D0B9B72",
    "roomMaster": -1
  }
]
```

roomMaster – the user Id of the room master or (-1) for no room master.

userType – the type of the user – “Child” or “Parent”

Revision History

26/6/2019	Initial version	Avner
1/7/2019	Added field description	Avner
28/8/2019	Initial release to market	Oren