



AUTO SILENT SYSTEM USING LOCATIONS SERVICES IN ANDROID MOBILES

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ABSTRACT — *There are many places like Hospitals, Universities, Corporate offices etc. where it is clearly mentioned, “KEEP YOUR MOBILE PHONES SILENT!!” Many times people forget to switch the mobile to the “Silent Mode” which is not feasible every time like in an important meeting, lectures etc. An Android application for automatic profile switching will provide near about completely automated profile switching. This application will enable the device to switch to the Silent Mode based on the data stored by the users in the database as per their requirements.*

Keywords - *auto silent, Silent Mode, android mobiles, automatic profile switching*

1. INTRODUCTION

SILENT SYSTEM will enable the device to switch to the Silent Mode in locations like Hospitals, schools, colleges, Universities, offices etc. as per customized by the user. The user just needs to enter the required coordinates of the locations along with the required radius dimensions that he wants to be in the silent zone. The stored data will be compared via the GPS and the profile will be changed accordingly. The user can store selected phone numbers in the database. If being on the silent mode say, in a meeting, a call comes from that particular number, the profile will change automatically to general mode after receiving more than 3 missed calls, and back to the silent mode after the call is been attended. A message will be sent automatically to that number of being busy.

The user can contact them back later without being disturbed. In User- Defined Switching Mode user set location that gets stored in the SQLite database which is already present in Android Devices. The application will use GPS Service provided by GPS Satellites for finding locations. In profile switching operation application actually switch the ringer mode of profile.

Here user can choose among Silent or Vibrate only ringer mode for switching purpose. There is a provision made to neglect the calls while on the silent profile to avoid the disturbance. Only Calls from the emergency numbers stored by the users will be allowed to be attended. Thus, SILENT SYSTEM plans to achieve the following objectives:



- Easy to use
- Automated profile switching
- Accuracy
- Increase usability
- User-friendly

2. PROBLEM DEFINITION

This new application will provide complete automatic profile switching according to location. This application will enable the device to switch to the Silent Mode in locations like Hospitals, Major Corporate offices, Universities, Well known Educational Complexes, Petrol pumps, Government offices etc. In User- Defined Switching Mode user set location that gets stored in the SQLite database which is already present in Android Devices.

The application will use GPS Service provided by GPS Satellites for finding locations. In profile switching operation application actually switch the ringer mode of profile. Here user can choose among Silent or Vibrate only ringer mode for switching purpose.

3. IMPLEMENTATION:

3.1 System Module:

Our project is about providing near about completely automated profile switching that will enable the device to switch to the Silent Mode based on the data stored by the users in the database as per their requirements. Our project comprises of six modules.

3.2 Group module:

This module deals with creating different groups of contacts as per the requirement of the user which can be later used to link with the locations selected for the profile changing purpose. More than one groups can be formed and be activated for a single or multiple locations.

3.3 Location module:

This module consists of the Google maps using which the user can set required locations to be used for profile changing. The name for the location and the range of radius is defined along with the coordinates of the locations selected.



3.4 Profile Changer module:

Using this module the locations are activated for the call rejection and profile changing functions. It plays an important role in mapping the groups with the locations selected.

3.5 Call Reject module:

This module helps assigning groups to the locations for call rejection activation. More than one group can be assigned to a single location.

3.6 Logs:

This module simply helps to keep the track of the user call logs. The type of calls i.e. incoming, outgoing or missed call along with its date and time of calling is saved for the future reference of the user.

3.7 Exit:

This module is being used when the user desires to exit the application. The application stops working and the user needs to log in again in order to continue using the services.

4. EXISTING SYSTEM

In the present system users have to schedule the time for the mobile to stay silent. They can also specify the day when the phone needs to be silent. According to the time and specified the phone will change its profile automatically. When the time of classes and offices changes the user have to set the time again. User interaction is very much high in the present system.

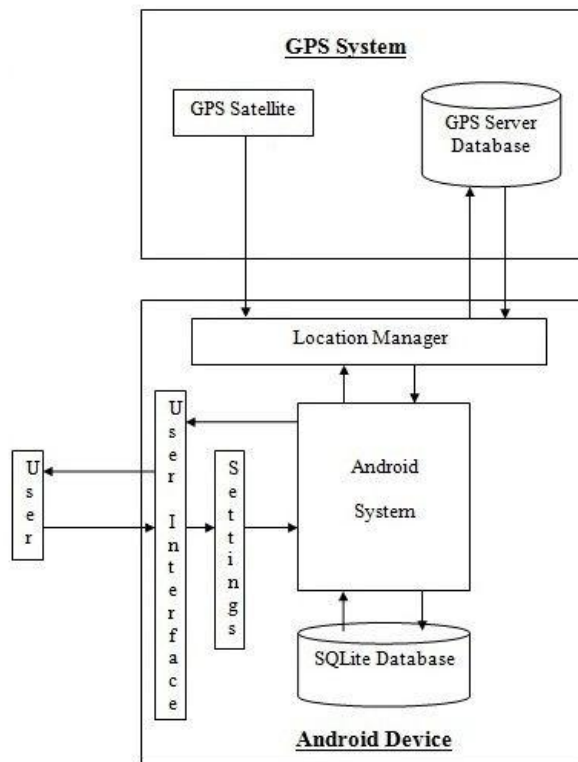
DISADVANTAGES OF EXISTING SYSTEM

- 1.It requires more human interface.
- 2.It does not work on location based services.
- 3.Users have to specify the time frequently.



5. SYSTEM ARCHITECTURE

The system architecture consists of the GPS System, Android Device, and User components. The User can interact with Android Device through User Interface. The Android Device uses Location Manager Interface and receives location data using Forward Geocoding and also can get address of location using Reverse Geocoding from GPS System.



As shown in figure, the GPS System consists of GPS Satellite & GPS Server Database. The GPS Satellite continuously transmits the signal containing information about receivers location (i.e. Location of GPS receiver with respect to GPS satellite, Current time etc.). Using this information GPS receiver calculates coordinates of location (i.e. Longitude, Latitude, and Altitude). The GPS Server Database stores the information of locations such as coordinates of location (i.e. Longitude, Latitude, and Altitude) and name and address of that location.

6. CONCLUSION AND FUTUREWORK



Silent System in Android Mobiles is a next level of Location Aware Intelligent Software which reduces human intervention for simple task such as sound profile switching. Android Smart Phone becomes much smarter by this application.

- Wide range of default locations, such as educational complexes, medical complexes, government and corporate offices etc can be considered.
- Provision for adding those locations in silent zone which the user requires.
- User-defined accuracy settings for user-defined locations.
- User-defined locations are stored in devices SQLite database and not in GPS Server Database hence GPS Server Database is not get disturb for adding new userdefined location or updating existing user-defined locations.

One can make location based triggering application without making lot of changes in this application. Instead of profile switching one can design this application for call divert also, so whenever he enters into the Silent Zone his all calls will be diverted on some number specified by him.

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