

Fire Accident Notification Using Real Time Location and Image Sharing

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Abstract— In Fire Accident Notification Using Real Time Location and Image Sharing, the user can share the accurate location to the local fire station. The accurate current location is provided to the fire station by using the latitude and the longitude that is embedded on the live image. In the notification of fire alarm the verification process is neglected with the help of live image, thus it automatically reduces the time taken for the verification process. Android intent functionality is used the application in order to use the third party applications.

Keywords- *multiple access scheduling, live image capturing, shortest paths.*

I. INTRODUCTION

A fire alarm system has a number of devices working together to detect and warn people through visual and audio appliances when smoke, fire, carbon-monoxide or other emergencies are present. In this app “Notification of fire alarm within the community” can alert from the fire accident. Using this app to control the rescue from the catastrophe. Normally, if fire may occurred, the people used to call some emergency number to contacting the fire-fighter team and intimating them about the fire accident

The multiple access scheduling decides how the channel is shared among the nodes in the network. Typically scheduling algorithms aims at increasing the channel utilization and thereby throughput of the network. This paper describes several algorithms for generating an optimal schedule in terms of channel utilization for multiple accesses by utilizing range information in a fully connected network. We also provide detailed analysis for the proposed algorithms performance in terms of their complexity, convergence, and effect of non-idealities in the network.

The performance of the proposed schemes is compared with non-aided methods to quantify the benefits of using the range information in the communication. The proposed methods have several favorable properties for the scalable systems. We show that the proposed techniques yields better channel utilization and throughput as the number of nodes in the network increases. We provide

simulation results in support of this claim. The proposed methods indicate that the throughput can be increased on average by 3-10 times for typical network configurations.

II. RELATED WORK

The existing work consists of many number of sensor connected to the hardware devices [3]. The cost of setting up the devices is high and it cannot be implemented in all the areas.

A. SENSORS CONNECTED TO THE HARDWARE

In [3] many sensor works together to detect the fire using the smoke produced due to the fire accident and alert the people by the respective alarm sound about the fire accident. It is only implemented in the higher organization such as companies, malls, and other private sectors. It [3] cannot be implemented in most of the common places.

B. CONNECTING TO THE BASE STATION

If fire may occurred, the people used to call some emergency number to contacting the fire-fighter team and intimating them about the fire accident. Normally, if fire occurred, the people used to call some emergency number.

First of all that number will connect to the controller room and they get the accident address from the people. Afterwards, they will make call to the nearby station by the address. In this process some time can take to recover the place.

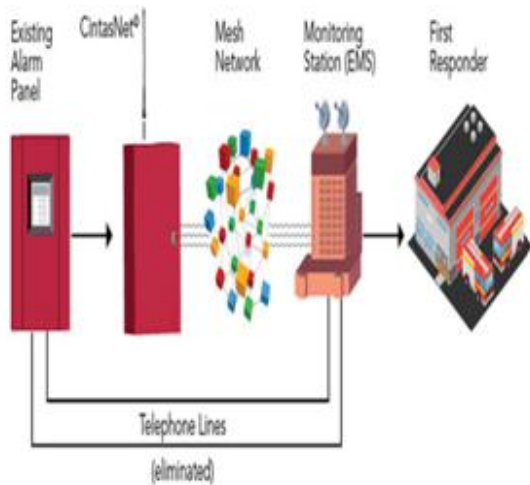


Fig 1.1 Existing System Real Time

In our proposed system, using this app to directly communicate to the nearby station with the help of map and automatically get the location [2] [4] from the user place.

Even though to captured image from fire accident zone then fetch the address and send notification to nearby member within the community. Thus, with the help of this application, many lives can be protected and saved.

III. ARCHITECTURE DIAGRAM

In architecture diagram, the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system. It is the skeleton process for project. In this project, it has three main processes they are Station, Server, and User. In user have performed three processes they are, shared news to the community member, know information that is send by another member and view the member list. In server is act as the bridge of the station and

user because it stored and retrieves the information. In station to receive the user notification and call.

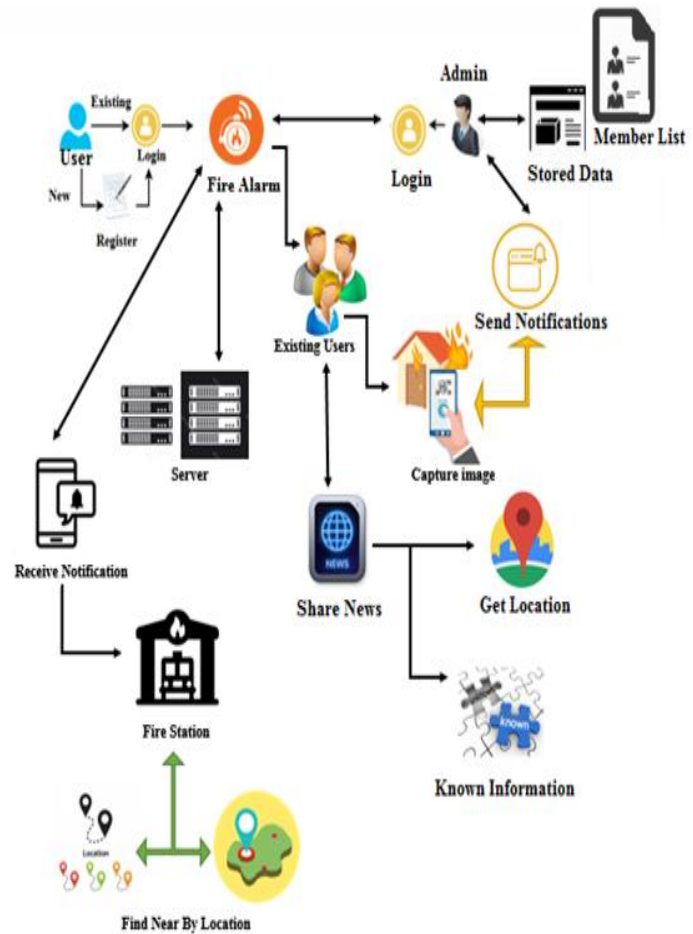


Fig 1.2 Architecture

IV. MODULES

A. INTERNET CONNECTIVITY CHECK:

This module helps us to controls and tracks the Connectivity Status; we can check there is an active Internet connection. Almost all Android Apps connect to the Internet to perform some kind of network access. Android allows application for connecting to the internet or any other local network operations.

For doing this need to ensure that the phone has a working internet connection. For this android SDK has a class or method that deals with the state of network connectivity. It also notifies applications when network connectivity changes. Broadcast receiver application will

automatically notified that there is any change in network connection.

B. GET THE LOCATION AND CAPTURED IMAGE:

The purpose of this module is, get the location of the accident zone location will get automatically then the user just captured the image in accident place afterwards to click the send button, the notification will send to the station with the help of server. Android allows applications to use location services through providing Location package.

The Location Manager System service is the central component of location framework which gives APIs for controls over location .Using this Location API application can automatically access to Google Map servers, data downloading using map, displaying map for particular locations, and response to map gestures. Also using these API calls to add markers, polygons, and overlays to a basic map, and to change the user's view of a particular map area.

For creating or build a wide range of camera or vision-based application android gives full access to the camera hardware. If user wants to capture a image using our application that can be done by requesting an existing camera app to capture a photo and after capturing image it can be returned to user application. In android marshmallow version for using camera to your application they need to give runtime permission.

There are two ways by which you can use camera option to android applications. First way is using existing camera application in our application. The second option or way is directly using camera API provided by android in our application

C. SEND NOTIFICATION WITH FIRE LOCATION:

Using this module user can alert particular area fire-station and users. Notification will display to users in different format and different locations. For example an icon in the status bar and more data entry in notification drawer are display using an app's icon or logo. A push notification is a message that pops up on a mobile device. Generally notification is a message that an app used to display it in outside off our application. For example it provides

reminders for user, communication from other people, or timely information or alert message that is automatically pre-programmed for app.

Tapping the notification user can open corresponding app or directly take an action from the notification. When user sends as notification it displays first in the status bar as an icon. To open a notification drawer Users needs to swipe down on the status bar, where there they can see details more and take actions with the notification.

If additional content and action buttons are in notification to View this Users can drag down on a notification to reveal the expanded view. Until dismissed by user or app the notification will remain visible. Notifications are briefly displayed in floating window in android 5.0 versions onwards and it is called a *heads-up notification*. That the heads-up notifications are usually for immediately a user needs to know about it and it only display in when the device is unlocked.



D. CALL TO THE STATION:

The purpose of this module is, gets calling permission from user to allow this application call. Later using this application we can call nearby fire station. Phone calls are

Built-in applications in android mobile phones. For some cases they may need to make a phone call through our application. Android provides two classes for making phone

calls and maintaining phone_call states through phone state listener and telephony manager. Action_Call method will trigger built-in functionality of application.

E. VIEW DATA FROM THE DATABASE:

This module helps to maintain user details and also stores the emergency message that will be shared during fire accident. Generally database a view is a way of presenting the information in the database. Any database, there are a number of possible views that may be specified.

Android support built in database called sqlite. For using sqlite there is no need to perform any database setup or administration task. For using this in built database android give class called android.database.sqlite.SQLiteOpenHelper. Using the methods of this class we can do database creation and version management.

V. CONCLUSION:

In this app “Notification of fire alarm within the community” can alert the people from the fire accident. Using this app to control the rescue from the catastrophe. With the requirements a suitable database is created and maximum efforts were taken to avoid replication in data entry and data storage. The major advantage of this application is data security, information retrieval, informal and efficient data storage.

VI. REFERENCE:

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