

Chapter 1

INTRODUCTION

This application is generally meant for the attention of the authorities or public in the emergency response capabilities such as terrorist attacks and the natural disaster by facilitating the communication with their respective along the mobile phones.

The difficulties in the existing application are the lack of situational awareness and communication terminology among their respective. Due to this response and recovery is Difficult to the authorities. In respect of the public safety with the support of the network provider the application runs in the android phones in efficient way to identify and recover the problem by the natural disaster or terrorist attacks etc...

Furthermore users are likely to operate the mobile devices for the security purpose to intimate the problem detection to their respective in the emergency cases.

1.1 Internet of Things

The Internet of Things is the expansion of the current Internet services so as to accommodate each and every object which exists in this world or likely to exist in the coming future. This article discusses the perspectives, challenges and opportunities behind a future Internet that fully supports the “things”, as well as how the things can help in the design of a more synergistic future Internet. Things having identities and virtual personalities operating in smart spaces using intelligent interfaces to connect and communicate within social, environmental, and user contexts. There are several fuzziness about the concept of Internet of Things such as IOT can be broken in two parts Internet and Things.

The worldwide network of interconnected computer networks based on a standard communication protocol, the Internet suite (TCP/IP) while a things is an object not precisely identifiable.

The world around us is full of objects, smart objects and the existing service provider known as Internet. The convergence of the sensors like smart objects, RFID based sensor networks and Internet gives rise to the Internet of Things. With increased usage of sensors the raw data as well as distributed data is increasing. Smart devices are now connected to Internet using their

communication protocol and continuously collecting and processing the data. Ubiquitous computing which was thought as a difficult task has now become a reality due to advances in the field of Automatic Identification, wireless communications, distributed computation process and fast speed of Internet. From just a data perspective the amount of data generated, stored and processed will be enormous. We focused on making this architecture as a sensor based architecture where each sensor node will be as important as the sensor network itself. Visualizing each sensor as having intelligence is the ultimate aim of any architecture in the IOT domain.

There is a lot of pervasive presence in the human environment of things or objects, described general overview of internet evolution with several IOT services with the use of radio-frequency identification (RFID) tags, sensors, actuators, mobile phones, smart embedded devices, etc. – which, through unique addressing schemes, are able to effectively communicate and interact with each other and work together to reach a common goal of making the system easier to operate and utilize. The objects that will be connected will be adaptive, intelligent, and responsive

1.2 Selection of OS: Android

Unfortunately, the mobile operating system market is very fragmented, with a large variety of choices. While we would like to have our system work on all devices we have to select a single operating system for our initial proof of concept work. In this regard we have selected Android, developed by Google in conjunction with the Open Handset Alliance as the OS for our work in this area because it is an open source framework which is rapidly gaining market traction. However, the choice of Android does not limit the applicability of our ideas on other operating systems. The fundamental tools and methods we have chosen in our implementations are still sound on these other operating systems.

1.3 About Android

Android is a Linux-based mobile phone operating system developed by Google. Android is unique because Google is actively developing the platform but giving it away for free to hardware manufacturers and phone carriers who want to use Android on their devices. Android is an open source operating system for mobile devices that includes middleware and key application, and uses a modified version of Linux kernel.