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ANDROID CHATTING APPLICATION BASED ON WI-FI TECHNOLOGY

Ekata M. Lambture [*], Prof. Z.M. Shaikh

[*] M.E. Student,Department of Computer science and Engineering,N.K. Orchid college of Engineering And Technology,Solapur,Maharashtra,India

Professor,Department of Computer science and Engineering,N.K. Orchid college of Engineering And Technology,Solapur,Maharashtra,India

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ABSTRACT

As we know that Android operating system is one of the popular operating system for mobile applications.It supports mobile applications such as Chatting based applications,File sharing applications etc. In market thosands of applications are available in which users can send-receive messages,shares the files,send images,audio,video through network connectivity such as 2G,3G,4G.

Android chatting application based on wi-fi technology provides same features but using WI-FI(Wireless Fidelity).Users can communicate with each other through WI-FI.There is no need of using internet connectivity.This application is very userful in case of organization, institute,college,office etc where the WI-FI netwok is available.In this paper we uses eclipse IDE for developing mobile application and server used to store text messages.

KEYWORDS: Android operating system,WI-FI,Eclipse IDE,Server.

INTRODUCTION

On the Internet, chatting is talking to other people who are using the Internet at the same time you are. Usually, this"talking" is the exchange of typed-in messages requiring one site as the repository for the messages (or "chat site") and a group of users who take part from anywhere on the Internet. In some cases, a private chat can be arranged between two parties who meet initially in a group chat. Chats can be ongoing or scheduled for a particular time and duration. Most chats are focused on a particular topic of interest and some involve guest experts or famous people who "talk" to anyone joining the chat. Chats are conducted on online services Web sites.

Since it's creation over 20 years ago, SMS or Short Mes- sage Service has revolutionized the way we communicate. In 2011, 7.8 trillion SMS messages were sent globally, high- lighting that SMS is a mass communications medium used by billions of people around the globe. In recent times,however a new wave of mobile communications services called mo- bile instant messaging (MIM) applications have gained con-siderable momentum. Applications likeWhatsApp,Viber and hike. One of the most interesting MIM applications on the market today is WhatsApp. WhatsApp is a cross-platform instant messaging application for smartphones. It enables users to send and receive location information, images, video, audio and text messages in real-time to individuals and groups of friends via internet connection[1].

This proposed chatting messenger instantly connects you to people on the same WiFi network, without ever accessing Internet.It is the fastest tool for immediate file transfer and content sharing,share photos, files, music, videos and even other applications a local network without slowness of the internet. It allows us to Start sharing with friends at campus,college,office and home.

WiFi is a technology that uses radio waves to provide network connectivity. A **WiFi connection** is established using a wireless adapter to create **hotspots** - areas in the vicinity of a wireless router that are connected to the network and allow users to access internet services. Once configured, WiFi provides wireless connectivity to your devices by emitting frequencies between 2.4GHz - 5GHz, based on the amount of data on the network.

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Wireless networking is known as WiFi or 802.11 networking as it covers the IEEE 802.11 technologies. The major advantage of WiFi is that it is compatible with almost every operating system, game device, and advanced printer.

LITERATURE SURVEY

Technology trends in both hardware and software have driven the hardware industry towards smaller, faster and more capable mobile hand-held devices that can support a wider-range of functionality and open source operating systems. Mobile hand-held devices are popularly called smart gadgets[4]. Adding text messaging functionality to mobile devices began to gain traction in the mobile communication services community in the early 1980s. The first action plan of the Group GSM was approved in December 1982, requesting "The services and facilities offered in the public switched telephone networks and public data networks should be available in the mobile system". This plan included the exchange of text messages either directly between mobile stations, or transmitted via Message Handling Systems widely in use at that time. The first proposal which initiated the development of exchanging information or sent message to the user was made by a contribution of Germany and France into the GSM group meeting in February 1985 in Oslo. Initial growth was slow, with customers in 1995 sending on average only 0.4 messages per GSM customer per month. In 2013, 6.1 trillion text messages were sent[2]. This translates into 193000 SMS per second. While SMS reached its popularity as a person-to-person messaging, another type of SMS is growing fast: application-to-person (A2P) messaging. A2P is a type of SMS sent from a subscriber to an application or sent from an application to a subscriber. It is commonly used by financial institutions, airlines, hotel booking sites, social networks, and other organizations sending SMS from their systems to their customers. According to research in 2013, A2P traffic is growing faster than P2P messaging traffic.

Over the years several approaches and solutions presented considering the secure exchanging of message thorough client and webserver. The various researches have been done and are going on location based project and in the same ratio various applications have been developed on location-based and message sharing system. As the amount of user deal to exchange the information with other people to store the large amount of data the existing system cannot support the centralized database. Sensitive data may also be leaked accidentally due to improper disposal or resale of storage media.Diesburg et al. surveys, summarizes and compares existing methods of providing confidential storage of data but it cannot support the secured communication between the user application and the webserver. Ramesh Shrestha, Yao Aihong et al. developed location and message sharing system for Android Platform. In the present location based services, the works are mainly focused on how to handle the location, how to display Google map on android devices and finally about classes and functions used for location services[7].

"The recent convergence of communication and information technologies has created possibilities unthinkable only a few years ago" Venkatesh(1998). Mobile phones, email, SMS (Short Message Service) and Instant Messenger are new communication technologies, which all contribute to the "death of distance" Cairncross (2001). Instant Messenger is a proprietary, simplified version of Internet Relay Chat, which allows two or more people to carry on a conversation, in real-time, using text based messages with context awareness. Instant Messenger is used to avoid boredom, to socialize, Lai et. al. (2002) and to maintain contact with casual acquaintances, Lee et. al. (2002). Leung (2001) found seven motives for messenger use among college students: affection, inclusion, sociability, entertainment, relaxation, escape and fashion. Mathieson (1991) found people use these mediums to sustain a sense of connection[9]. A lot of portals are available which provide messengers free of charge. Since they are free of charge, they are the preferred services by millions of people around the world. Some of the Mobile Messaging Applications those are generally used are:

i.Hike
ii.Chat On
iii.WhatsApp
iv.E-buddy messenger
v.Facebook Messenger
vi.G Talk
vii.Go SMS Pro
viii.We-chat

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RESULTS

i. Chat and connect with people near to you without any data usage or external connection
ii. Transfer large files including audio,video, pdf files in seconds for free. No data usage. No Internet needed.
iii. Allows to share other applications in mobile phone.

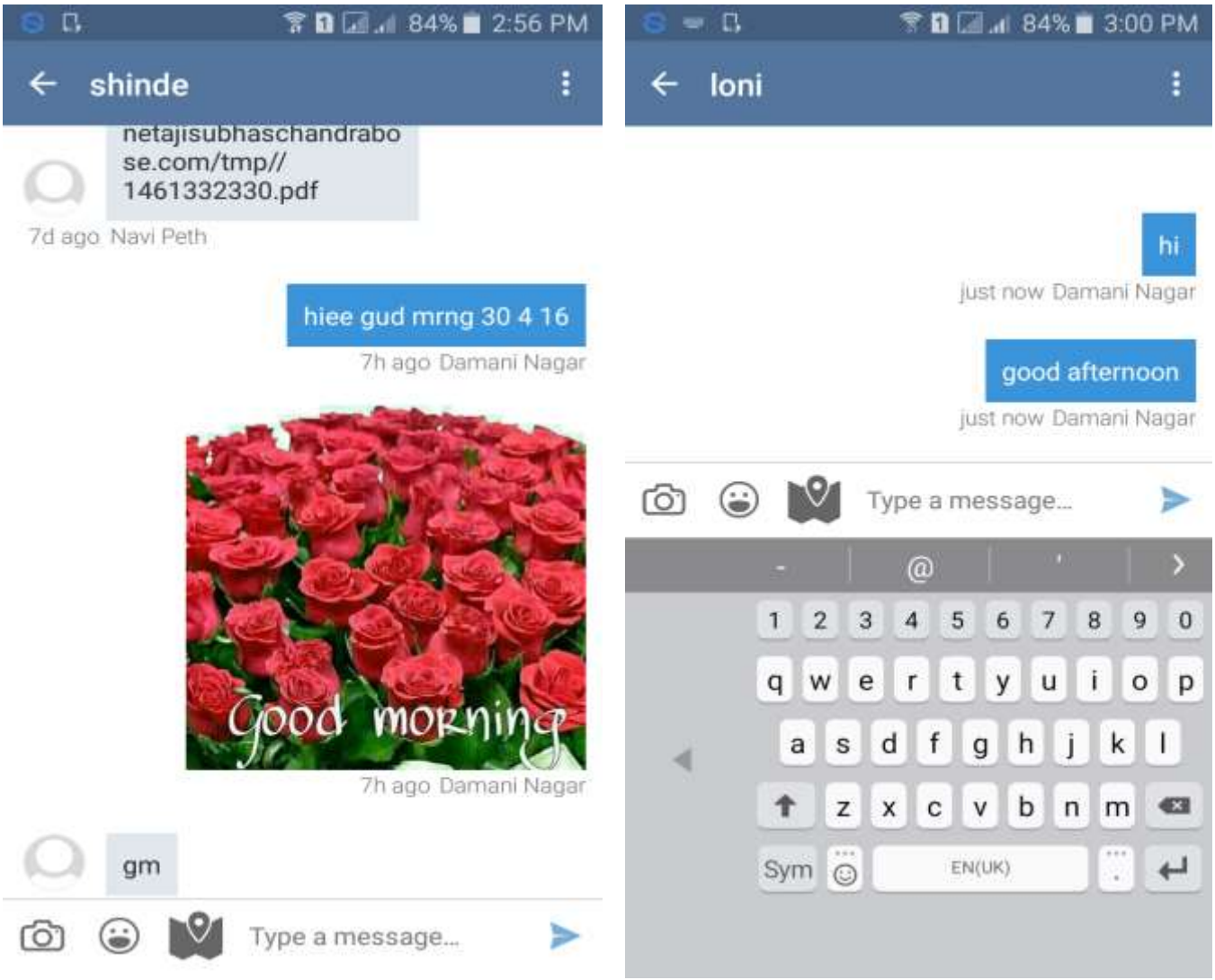

Fig. Chatting through WI-FI

Above figure shows chatting between two users through wi-fi network in which users are able to send-receives messages,audio,images,pdf files.

CONCLUSION

Android chatting application based on WI-FI technology allows users to commumicates with each other through WI-FI,simply turing on WI-FI option from mobile phone instead of using internet data connectivity. Thus it saves the costs where users are can send and receive messages within WI-FI range.However,there is no need of any external connection.Within WI-FI range users can transfers large amount of data as well as download the data.

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