

Android Application Based on Bluetooth Technology (Short Messaging Service)

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ABSTRACT

Android application provides many chatting application and it is work with cost and internet. Wireless communication used to Bluetooth chat and android platform. Then wireless protocol is used to electronic device such as personal computer, printer, laptop, telephone, digital camera, video game and more. Android operating system based Smartphone are increasingly nowadays because of simple and open source to create application of API. Bluetooth device is connection with particular range and text based communication. Design of chatting application based android Bluetooth establishes connection between smart phone using messages is exchanged between them. bluetooth chat are used to transfer message between one android smart phone to another smart phone. This system is very useful and user friendly interface, comfortable to the end user.

Keywords : Bluetooth, Android, Wireless Communication, Eclipse, Chat

I. INTRODUCTION

Bluetooth is a cable replacement of remote access and wifi, GSM any support of the network based transfer data via Bluetooth. Bluetooth device is on and scan the device, then device is available and pair to the connection. It is used to two way communication between client and server. This type of Bluetooth technology is used to create new contact, update contact and set profile picture. Every user can chat with Bluetooth and view profile picture, then text based conversation, files and photo, document can send via Bluetooth. Some place are any network service cannot be available are used to Bluetooth technology.

Wireless communication between bluetooth devices by using the short-range of bluetooth frequency. bluetooth is an open source and android platform using the system based wireless connection with support of the PC and smart phone industries. Bluetooth chat uses multiple users without data bundles. This system use secured transfer of data one smart phone to another smart phone.

Bluetooth technology is designed by Ericsson in 1994 wireless connection devices. The previous system provides Bluetooth frequency established RFCOMM channel/signal with other Bluetooth device. Bluetooth is managed by the special interest group (SIG), exchanging data over short distance from fixed and mobile device. Then many version of Bluetooth device is available.

II. LITERATURE SURVEY

1) Bluetooth Chat Application: Blues

Bluetooth is still a relatively new technology to the wireless world. It is designed for wireless communication between a wide variety of different Bluetooth enabled devices; from computers and PDAs to GPS systems and heart monitoring devices. There are a growing number of companies continually adopting this technology. As Bluetooth becomes a standard feature in many products that we use every day, it seems that the use of the technology will grow even faster in the future.

Messenger applications are very much in vogue these days. Whatsapp, We Chat, Hangouts, etc are a rage in the app world. But all these messenger applications exploit either mobile data which is a paid service or Wi-Fi which is not always available and when available the connection strength fluctuates from place to place. Even when one wants to send a message to another person on the same floor or a few feet away they have to rely on the availability of these two. Hence we develop a Bluetooth based android chat application. Apart from general messaging between to users, the application also has an additional feature which allows users to save their chat history to an Android based server for storage thus not crunching on the phone memory as well.

2) Bluetooth Messenger: an Android Messenger app based on Bluetooth Connectivity

The project discussed here is an Android messenger application which connects using Bluetooth. The main concepts discussed here are : I) Bluetooth connection between two or more android smart phones, whereby users can chat with each other ii) Bluetooth connection between a server and an android smart phone ,whereby the user can update and synchronise his/her chat records with the server from time to time. iii) Data structures used in storing and updating the data (messages) against respective usernames. iv) State machines and finite expressions used to achieve robustness, thereby delivering error free messages. This whole project has been designed using python programming language. This app doesn't require an internet connection rather uses the in-built Bluetooth facility in a phone. Hence it comes in handy for charge-free short distance communication between individuals within a certain range (30 or 150 ft, depending on the hardware).

3) An Overview of Bluetooth Technology and its Communication Applications

Bluetooth is a new RF short-range wireless technology which is designed for wireless communication between different devices. There is increase in popularity of Bluetooth technology and is being accepted in today's world. There are organizations which are doing research on Bluetooth technology, but very few of their research analysis provide a balanced view of the technology, describing its implications for businesses,

pros and cons. In this paper analysis have been done keeping in mind various perspectives of the Bluetooth technology. The analysis starts with a description of the technology in terms of its network infrastructure, hardware and software. Then it is continued by the Error corrections and retransmission. The analysis is done on macro analytical view including the business implications, advantages of this technology, its role in the global third generation (3G) wireless schemes. The finally it concludes with the applications and future potentials of Bluetooth.

4) Android Mobile Application Build on Eclipse

Android is now the most used mobile operating system in the world. Android now has more users, more phones and more tablets worldwide than any other mobile operating system. The Google Play app store has been growing at breakneck speed and with almost as many apps as the Apple app store. This, for entrepreneurs and developers, is the chance of a lifetime to make even more money and reach an even broader audience base. This paper gives a complete knowledge of how to start working on eclipse and develop an application and get it run on emulator.

5) Eclipse platform technical overview

The Eclipse Platform is designed for building integrated development environments (IDEs), and arbitrary tools. This paper is a general technical introduction to the Eclipse Platform. Part I presents a technical overview of its architecture. Part II is a case study of how the Eclipse Platform was used to build a full-featured Java development environment. When people speak of Eclipse, they very often mean the Eclipse Software Development Kit (SDK) which is both the leading Java™ integrated development environment (IDE) and the single best tool available for building products based on the Eclipse Platform. The Eclipse SDK, a critical piece of the Eclipse tapestry, is a combination of the efforts of several Eclipse projects, including Platform [<http://eclipse.org/platform>], Java Development Tools (JDT [<http://eclipse.org/jdt>]), and the Plug-in Development Environment (PDE [<http://eclipse.org/pde>]).

The proposed system is communication at anytime and anyplace without any data transfer no wifi, GSM can

be easily share information via Bluetooth. Persons can chat via Bluetooth Process for Offline. Bluetooth device turn on and allow connection pair with device are exchanged message between client and server. To chat with user select list of device and send message. Then many devices are displayed and chose chat session. Once chat session is accepted start with chat at different user. In addition to this person-to-person chat, chat rooms can be used to gather a number of buddies. Then operates one Android Smartphone to Another. The all process co-operate with Bluetooth.

- The application can only accessed with mobile user within range.



Figure 2. Bluetooth chat in two android devices

Architecture Diagram:

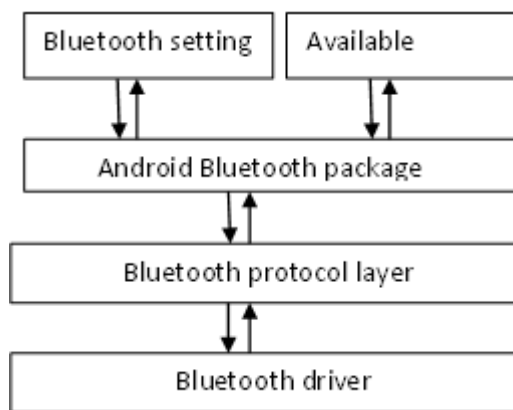


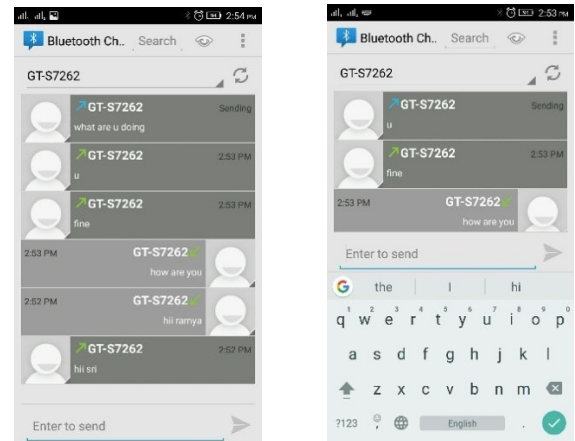
Figure 1. Architecture diagram

The figure 1. explains the concept of Bluetooth chat. First Bluetooth turn on and scans for device is visible to nearby devices while paired. Then Bluetooth chat in two android device text based message are transfer data, file and document etc. bluetooth chat app are used different user and easy to share information via Bluetooth. Associate means device is paired and available devices is show. Bluetooth setting is display all nearby device and limited of history, delete history and set sound or vibrate, notification are available.

III. RESULTS AND DISCUSSION

Process of Bluetooth chat application:

- First check whether the Bluetooth device is on/off mode.
- Bluetooth device is on and scan for device.
- List of device is available, select any one device Paired with discoverable device and connection is secured.
- Start chatting and share file, picture and document.



IV. CONCLUSION

In our project Bluetooth chatting is an innovative approach to the mobile world. This application use of Bluetooth terms of chatting. Means persons can chat via Bluetooth Process for Offline. Starts the application and search the Bluetooth device, then devices is works to response the other Bluetooth device. Bluetooth can offer fast and secure access to wireless connectivity all over the world. Bluetooth chat are transmitting message from one mobile to another mobile phone. The main objective of the android app using Message transfer via Bluetooth.

V. FUTURE WORK

The implemented could be enhanced to handle multiple Devices connected at the same period. Also other communication applications like Audio, video calls and signal could be built on the top of this application to experience mobile communication in any situation. Also the GSM service provider based identity of Bluetooth device (i.e. Device name) could be replaced

with other customized identity in conjunction with other device specific identity.

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VI. REFERENCES

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