Step-Up towards Privacy and Connectivity Concerns in WhatsApp

Ms. Kavisha Duggal, Assistant Professor,
 Dept of Computer Science
Lovely Professional University
Phagwara, India

Ms. Reema Ludhra, Student
Dept of computer Applications,
Lovely Professional University
Phagwara, India

Abstract-**WhatsApp is an instant messaging application which runs on all the smart phones with internet access. Recently, hit the record of 10 billion total messages exchanged per day. Though, it is one of the most popular and favorite application of the smart phone users there are few issues involved in its working. The foremost issue I want to propose is the Last Seen Time stamp in the WhatsApp is updated with internet access time, rather it should fetch the time when the message is actually sent. In addition to this, I would like to propose the privacy concerns of the application. That is, anyone can be added to the WhatsApp chat group, without the permission of a particular user. Thus, this is the privacy concern among the application user.**

Keywords: WhatsApp; Connectivity issues; Privacy concerns.

I. INTRODUCTION

Today, WhatsApp is the most popular Application amongst youngsters. One can send text messages, images, videos etc on this cross-platform application that too free of cost. Only an internet connection is required to successfully run this application. It is a free application available in play stores of a smart phone. In very less time it has taken away the market of text messages, but though creating a huge business for the internet data plans. Application is already working in security section in terms of encryption and decryption methods of messages. Since it is becoming the need of the generation, there is some privacy concern too in the application and it could improvise for the better usage. As it works great as a social chat hub but still it does not preserve privacy. Therefore, in the proposed paper some privacy issues and measures are offered to make the application more user friendly for mobile communication. It became so popular that it was acquired by face book on 20 February, 2014.

II. PROBLEM DESCRIPTION

A. Connectivity issues in WhatsApp

Though the last seen feature of this Application is the most unique and popular feature among its users, but it has various discrepancies related to it.

- Users send the message to another user, say at 09:32 AM and last seen of sender is 09:19 AM. How is this Possible?

- Therefore, the time stamp of the last seen must be updated, at least for that person with whom the recent conversation is being started.

- This time difference in the last seen time stamp has increased after it has been acquired by face book.

sufficient. Application must ask user to permit his entry to a group.

D. Recent Privacy Updates by Facebook:
Though privacy issues have been removed recently by the face book in WhatsApp application, group privacy is still a issue.

- Group Block: There is no option for a user to block himself from a particular group. Even if a user left a group once , he can added again by the admin any number of times.
- Malicious Users: when a users is added to a group, his contact number is visible to everyone is group and it could be misused too.

### III. PROPOSED PRIVACY CONCERN

A. Mute Conversations:
Though, there is a feature of mute group conversation is available in WhatApp, there also must be a feature for muting a particular conversation too. As in today times, everyone loves to have their privacy preserved, this feature must be enhanced in the application if user do not want to be notified about a particular user.

B. Invisible to a particular user:
This is another feature which application lacks and users want. There must be a option where users can make themselves invisible to a particular user. That is, even if the user is online, last seen time stamp should remain same as last the user was visible.

C. Group Privacy:
Group conversation is another good and productive option of the application but not secured in terms of the contact numbers. Because phone number is a very private thing and users do not share it publically. But when groups are created in the WhatsApp, the group admin can add anyone in the contact list. There is no request or notification given to user that he is going to be added in a particular group and his number will be available to all the members of the group. Though there is option to leave the group later, but that is not
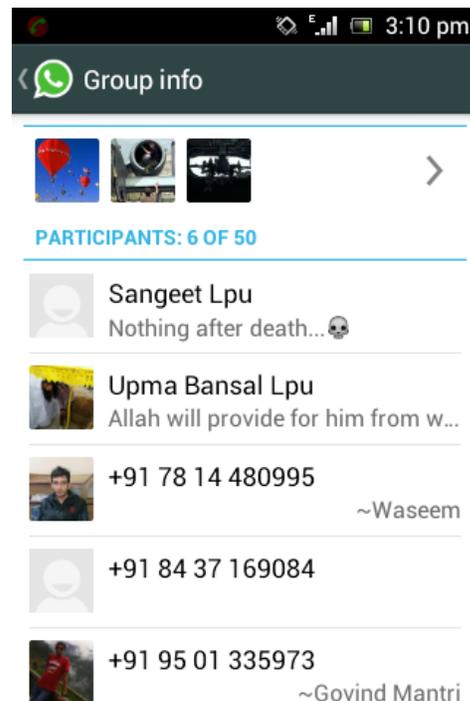
IV. SECURITY

A.   *Packet Sniffing*

It is recently discovered that data in WhatsApp is sent in plain text. And it is very easy to sniff the WhatsApp over wi-fi. Even sniffing application in play store is available. Therefore, with packet sniffing user can read other user's conversation.

- WhatsApp Spam & Illegal Use: Hackers send spams over the WhatsApp and even they can easily perform illegal activities using other user's account.

- Basically WhatsApp account is associated with a Device's IMEI number. IMEI is International Mobile Station Equipment Identity, a unique number, to identify 3GPP (i.e., GSM, UMTS and LTE) and iDEN mobile phones, as well as some satellite phones. Hackers use this IMEI number to hack the WhatsApp account because when a user register on WhatsApp, the IMEI is saved as password for that particular account. So, your account. Therefore it is very important to keep your IMEI number safe.

B. WhatsApp messaging through spoofed Numbers

Here is another security breach method. WhatsApp's unique identity for a particular user is his phone number. But there is a possibility to message through WhatsApp without using original phone number. There are different apps available in market for different mobile operating systems with which message can be sent to others without any verified phone number. Therefore, malicious and pernicious people can use this feature for destructive purposes.

C. Proposed Functionalities
WhatsApp is now becoming a complete package for conversation; therefore features few more features must be added.

- Audio Calls: Now-a- days, when WhatsApp is becoming a sole reason for the sale of internet packs of ISP's , there must be a feature of audio calls too. So that user must not shift to other application for the calling purposes.

- Video Calls: Though video's can be sent in a non-real time environment, but there can be feature added for video calling too as available in many other mobile chatting applications. It can be implemented through RTP (Real time Transfer Protocol) and VOIP (Voice over IP).

- Another feature which is most needed in this daily use app is sending of documents in .pdf or .doc format. Though we can send media like images, audio and video but there is no option for sending documents.

V. AVAILABILITY FOR LOWER VERSIONS

No doubts that WhatsApp is a beautiful app that with large availability and usability, but still is confined to smart phones only. Lower versions of application for java and symbian phones too on which internet can be accessed. Its reach should not be limited to smart phones only.

VI. CONCLUSION:

With the emerging new technologies, world is becoming a smaller place. Communication from newspaper to television, then to computers and laptops and now the whole world has confined to a small hand sized gadget called mobile phone. We are equipped with several ways to connect to the world. And WhatsApp is a kind of application which is cheap, fast and readily available. Number of users of this application will soon be multiplied to many times in coming years. Therefore, it is very necessary to improvise this application and make it more user's friendly but with privacy preservation.

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