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SECURE LOCATION DETERMINATION SERVICES ON MOBILE DEVICES

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ABSTRACT

Location –based services(LBS) use real time geo data from a mobile device or smart phone to provide information ,entertainment or security .Some services allow consumer to “check-in” at restaurants ,coffee shop ,stores ,concerts and other places or events .This application often rely on current or preferred location of individual user or a group of user to provide service which jeopardizes their privacy .Users do not necessarily want to reveal the current or preferred location to the service provider or to other ,possibly entrusted users .In this project privacy algorithm for determining optimal meeting location is proposed for a group of users.

KEYWORDS: Entrusted, Optimal, Privacy

I. INTRODUCTION:

State-of-the-art smart phones and mobile devices today’s highly interconnected urban population is increasingly dependent on these gadgets to organize and plan their daily lives .These application often rely on current location of individual user or a group of user to provide the desired service ,which risk their privacy. Users don’t necessary want to reveal their current locations to the service provider or to other .possibly entrusted users .In this paper we propose privacy preserving algorithms for determining an optimal meeting location for a group of users.

We perform a through privacy evaluation by formally quantifying privacy loss of the proposed approaches .In order to study the performance of our algorithms in a real deployment .we implement and test their execution efficiency on smart phones .By means of a targeted user study use attempt to get an insight into the privacy awareness of users in location based services .We propose a method for searching location based on the user location can be fetched using GPS.A second objective of our work is to understand to what extent difference in location sharing preference between the how parties have effects on the design and likely adoption of location precisely locate any particular individual of a any particular individual of a peer group of a company /team so that it is possible to schedule the meeting at one of the peers residence /office that can minimize the cost/time/fuel of other meeting schedulers can be designed and deployed on any android device.

II. EXISTING SYSTEM:

The existing system is used to find the location and to schedule the meeting .But finding the location is not directly from GPS .Since some places are restricted and the current location cannot be identified ,and before to schedule the meeting make a call to that particular responsibilities it's becoming extra processing time at all.

Some interior area we didn't get the GPS values(latitude and longitude) directly ,because satellite focus can't able to get the corresponding location .The disadvantages of the existing system are, GPS didn't get accurate value for interior area .Before to schedule the meeting making a call manually .It will increase the traveling time and fuel.

III. PROPOSED SYSTEM :

The aim of this project is to identify the location of the employees and to schedule meeting according to that which satisfies all the employees in the peer group .The location of the employees is tracked using GPS in the smart phones and it gets updated in the cloud storage .Based on the location of the employee common place is identified using the google map and the distance is calculated using Google API to get a centralized place

When meeting can be schedule using that centralized place automatically search the nearest hotels and resorts at all .That particular meeting location and address is send to the corresponding employee mail id . The advantages of the proposed system are when the GPS value didn't get the interior area that time it will automatically navigate the service provider .Reducing the time ,fuel and wastage of traveling .Reducing the distance and work pressure of the employee .The location based services which rely on sharing of location in order

Architecture Diagram:

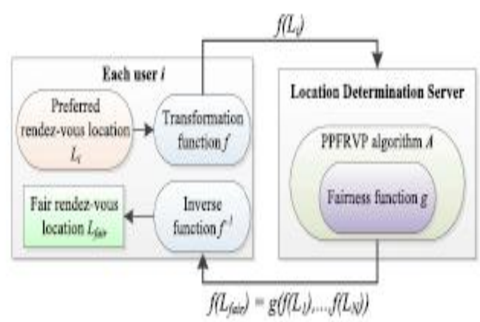
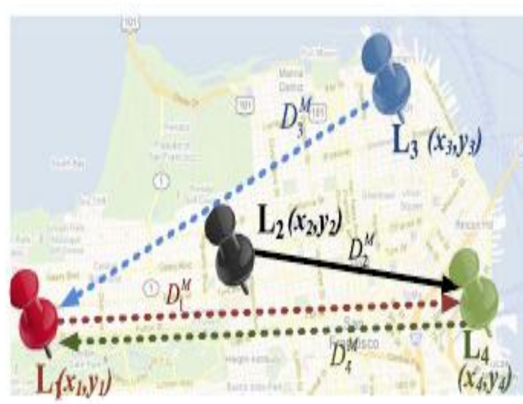


Fig. 1. Functional diagram of the PPFRVP protocol.



This figure shows a functional diagram of the PPFRVP protocol,where the PPFRVP algorithm is executed by location determination server.The fairness function g can be defined in several ways,depending on the preferences of users or policies.The graph shows one such fairness function that minimizes the maximum displacement of any user to all other locations.This fairness function is globally fair and can be easily extended to include additional constraints and the parameters.

IV. PROPOSED SOLUTION TO PPFRVP PROBLEM:

The proposed system is used to solve the FRVP problem. Each user send their current or preferred location to the server by applying transformation function. Then the location determination server apply the fairness function on the location to get location that is faired to all the users in the group. The location determination server then apply the inverse transformation function to the faired location and send that to each individual user in the group.

V. MODULES:

User Module:

The main goal is to protect against semi-honest users may want to learn the private location preferences of another users from the intermediate results and the output of the FRVP algorithm. We refer to such attacks as passive attacks. User inputs are encrypted with the location determination server with the public key.There is a confidentiality guarantee against basic eavesdropping by participants and non-participants.The goal of protecting against semi-honest users.We will later also analyze how proposed solutions fair certain active attacks among users and input manipulation attacks.

Location Determination Server Module:

The primary type of location determination server adversarial behavior that we want to protect against is an honest but curious.It may try to learn information about the user's location preferences from the received inputs,the intermediate results and the produced outputs.In most of the practical settings ,where service providers have a commercial interest in providing a faithful service to their customers,the assumption of a semi honest location determination server is generally sufficient.Given this goal of protecting against a semi honest location determination server, we will later also analyze how to proposed solutions fair against certain active attacks, including collusion with users and fake user generation.

VI. RESULT:

In the existing system third party users or non- participating users can easily access the information about the location, but in proposed system non - participating user cannot access the information, because we encrypt and decrypt all the messages that are send to the individual users and location determination servers.

VII. CONCLUSION:

The project addresses the Privacy issue in the Fair Rendez-Vous problem.The solution are based on the homomorphic properties of Well-known cryptosystem.The location determination Server executes the FRVP algorithm on the inputs it receives from the users in order to compute the FRV point.The LDS is also able to perform Public –key cryptographic function.For instance,a common public-key infrastructure using the RSA cryptosystem could be employed.To provide practical Privacy-Preserving techniques to solve the FRVP problem,such that neither a third party,nor participating users,can learn other users location;participating users only learn the optimal location.

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