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Determination of feasible central location for meeting from multiple geopoints

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ABSTRACT

In recent years smart phone are become most important gadget for maintaining the daily activities and it also used by maximum population worldwide. Use of smart mapping technology is also increasing in large area like transportations, defense, sports, etc. Mapping applications are always depend upon current detection or preferred location of user or the group. Sharing location among group is better solution to know the individuals location. Considering the condition any group wants to arrange a meeting at location which suits all the members hence it will always better to find centroid of the polygon generated by user geo-locations. Proposed system aimed at finding the preferred and central location for user group using geo-point calculation and mapping technologies. The proposed system will provide a location based service. This system will provide the central location or the location which is nearer to all users by using great circle algorithm and users location will be determined by using Google map API and GSM. Location privacy is the ability to prevent other parties from learning one's current or past location.

Keywords: *Location Privacy, Global System for Mobile Communication (GSM), Mobile Determination, User Authentication, Security.*

1. INTRODUCTION

Location-based services (LBS)are a general class of computer program – level services that use location data to control features. As such LBS is an information service and has a number of uses in social networking today as an entertainment service, which is accessible with mobile devices through the mobile network and which uses information on the geographical position of the mobile device. This has become more and more important with the expansion of the smart-phone and tablet markets as well. LBS are used in a variety of contexts, such as health, indoor object Search, entertainment, work, personal life, etc.

1.1 Proposed Work

This proposed system will hide the location of users by using stealth geo-synchronization. Great circle algorithm will be used for calculating the distance between multiple geo-locations. Then by using polygon centroid calculation, central point will be determined. This system will provide the central location which will be approximately same for all users by considering user references; it will also provide privacy about users location. This process includes multiple stages of execution. Consider there are five users in group planning to meet in centrally preferred location then one user from all will become master user and after which all user will share their location with master user and master user will execute the process. After execution system will calculate the central location by calculating the centroid of the polygon created by the user's connection. Once system get the central location it will ask user about his preferred location and after this using Google mapping API system will find out the nearest location selected by the user and once it found system will inform all user about final meeting location and if user wants he can view the travelling path to the location.

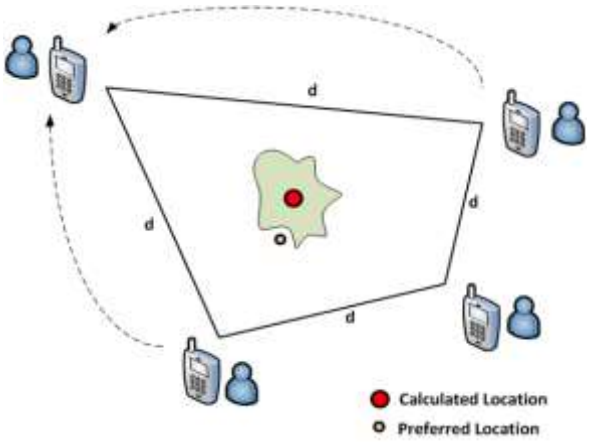

Fig 1: Proposed System

1.2 Objectives

1) Provide central feasible location-
Central feasible location will be calculated by using great circle algorithm and polygon centroid calculation. Then by using Google map API users location will be track.
2) Provide privacy to all users- Privacy can be provided by using stealth geo-synchronization.

1.3 LITERATURE SURVEY

Igor Bilogrevic, Murtuza Jadliwala [1] proposed privacy-preserving algorithms for determining an optimal meeting location for a group of users. They perform a through privacy valuation by formally quantifying privacy-loss of the proposed approaches.

Rinku Dewri and Ramakrishna Thurimella [2] proposed a user-centric location based service architecture where a user can observe the impact of location inaccuracy on the service before deciding the geo coordinates to use in a query.

2. CONCLUSION

The proposed system will provide a location based service. This system will provide the central location or the location which is nearer to all users by using great circle algorithm and users location will be determined by using Google map API and GSM. Location privacy is the ability to prevent other parties from learning one's current or past location. Generally, Location Based Service (LBS) gives an information service about the physical location of a user. Proposed system will also provide privacy about user's location.

3. REFERENCES

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