

**Geofencing And Location Based Reminder Services**

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Abstract —

In this article, we describe to provide notifications to the user using a to-do list and current locations for point of interest. As per the increasing use of the mobile phones the application based on the idea to present location specific information in case the smart phone user ask for it consider small amount of application are dealing with geo-notification that are reliable to inform the smart phone user proactively about location specific information a dedicated zone is entered or left. The technology behind proactive location based services is called geo-fencing and it is mainly implemented and executed at mobile device. This paper presents new way to offload this resource i.e. intensive process of monitoring the user's location in to the infrastructure. The mobile devices hereby consider to be thin client that is responsible to locate itself whereas the continuous comparison of the mobile's position having large set of dedicated zones, called geofences, is executed within an environment having lower resource constraints. A prototypical implementation of a thin client as well as the corresponding location processing unit within the infrastructure that is introduced, discussed and evaluated under different environmental conditions. Big data created lot of buzz in technological world. Sentiment analysis or opinion mining considered as important application of big data. Sentiment analysis is used for understanding voice or response of crowd for product, services, organization etc. Sentiment analysis concentrate for subjective statements or as overlook objective statements which carry sentiments.

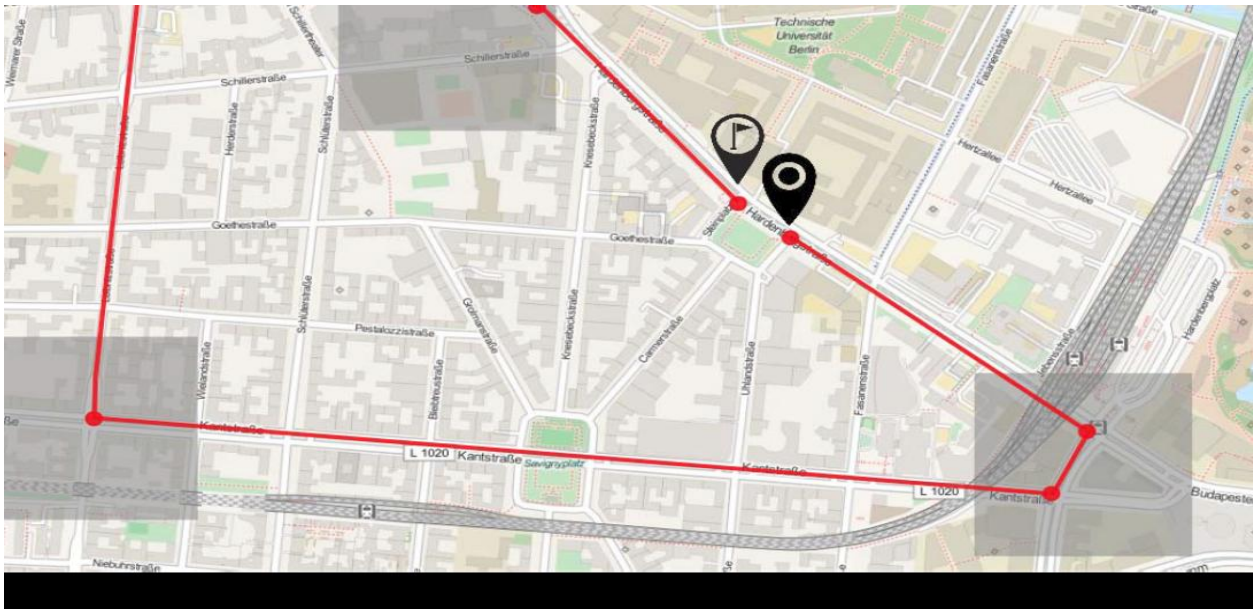
Keywords:- Geofencing System, Location Based Services, Sentiment-Analysis, Geofence matching Engine.

I. INTRODUCTION**1.1 : Location Based Services (LBS):**

The location-specific reminder services are an absolutely necessary feature of a smart phone or tablets. While taking the user's location into account, they are mostly used to activate the search to obtain location-based information (e.g. surrounding shops, nearby friends, available rental cars). Thereby, a LBS is being asked the question about Location especially beneficial check its accuracy and the relevant information is being presented by a mobile application only on request by the user that is to say, the requested location-specific information is being forced by alternatively being pushed to the user. Recently, all major mobile operating systems make known building support for dedicated LBS, exceptional known as *Geofencing*. In this scenario, the smart phone device is able to signify the user about location-specific information in scenario the user comes or leaves a dedicated zone, called *geofence*. This feature is specially used by location-specific notification applications as a reliable way for clients to be notified about personal to-do's at appropriate locations.

1.2 Concept Of Geofencing:

In this scenario, the smart phone device is able to signify the user about location-specific information in scenario the user comes or leaves a dedicated zone, called *geofence*. This feature is specially used by location-specific notification applications as a reliable way for clients to be notified about personal to-do's at appropriate locations. Another very potential application area deals with location-based advertisements. Smart phone clients that are walking or driving close around to a commercial geographical area are considered to be potential customers and will be proactively reminded about sales, offers or coupons. In many scenarios, it is not efficient to consider whether a user is a promising target for proactive advertisement or *geo-notifications* commonly by just observing the client's location.



1.3 Location Based Reminder Services Scenario:

For example, a promising target for location-based advertisement arriving at a commercial geographical area and coming from a rich geographical area of the town might be attracted in indulgence car offers than everyday arriving with municipal transport from a poor district. Taking the center of the user into specifically as well would make less the set of all potential targets for proactive indulgence car offers to a smaller but related subset. In turn, non curious users would not be flooded with geo-notifications that aren't of any reliable for them. Since today's geofencing implementations are not able to deal with these additional spatiotemporal constraints, we presented a method to model a new type of geofence, named as *geofence scheme*. A geofence case includes a series of geofences which need to be passed by a promising target in a appropriate manner so that a related geo-notification gets triggered at the smart phone. the example above, is a geofence scheme would contain a single geofence sounrading the rich geofencing , a single geofence including the commercial geographical area and the temporal relationship between each other. Usually, Geofencing is executed only on the mobile devices. It includes the continuous location of the mobile device as well as the continuous matching of the mobile's position with a area of geofences. Unfortunately, observing the user's location related to a geofence scenario requires more appliance on the mobile device. These appliance might not be available on phones or their use would increase the battery drain. convincing, making it practically infeasible. Therefore, this paper introduces a geofencing location based reminder services with to do list using user reviews the sentiment analysis technique is used. Thereby, a mobile users are responsible for the positioning while the heavy-weight process of monitoring geofence scenarios is performed within the framework. The infrastructure is thereby advised to follow the central pattern of the mobile cloud to support mobile devices in their day today's work.

II. LITERATURE SURVEY

2.1 Infrastructure-assisted Geofencing: Proactive Location-based Services with Thin Mobile Clients and Smart Servers

Author: Sandro Rodriguez Garzon, Bersant Deva , Gabriel Pilz, Stefan Medack This paper is based upon more experienced notation of geofencing. in many cases, it is insufficient to decide whether a user is a present target for proactive ads or gei-notifications in general by just observing the users location with respect to a single geofencing area.

2.2 Energy-Efficient Location and Activity-Aware On-Demand Mobile Distributed Sensing Platform for Sensing as a Service in IoT Clouds.

Author: Charith Perera, Dumidu S. Talagala, Chi Harold Liu, and Julio C. Estrella, in this paper they implemented a context-aware, specifically, location and activity aware mobile sensing platform called context-aware mobile sensor data engine (C-MOSDEN) for the IoT domain. We evaluated the proposed platform using three real-world scenarios that highlight the importance of *selective sensing*. The computational effectiveness and efficiency of the proposed environment are investigated and are used to highlight the advantages of context-aware selective sensing.

2.3 Automatic Sentiment Analysis for Unstructured Data

Author: Jalaj S. Modha, Prof & Head Gayatri S. Pandi, Sandip J. Modha in this paper they are going to explain about exiting methods, way's to do sentimental analysis for unstructured data which reside on web. The sentiment analysis is nothing but the new approach which will helps us to suggest appropriate result based on user's review.

III. RELATED WORK

3.1 Overview of geofencing

In most scenario, a Geofencing system can be divided as either being a mobile-specific or centralized solution based . In a centralized system, a smart phone device is specially being tracked by the surrounding infrastructure, e.g. by proximity sensing. A appropriate Geofencing component within the infrastructure, e.g. owned by a mobile-user or as a 3rd-Party user, is then constantly matching the position of the mobile device against a set of geofences. In case of an entry or exit action, the geo-notification can be either send to the mobile device, e.g. via SMS , or can supplimentary be specified as an input for location stable services. These type of Geofencing systems are specially used in case a authentic position is required, e.g. for calculating reasons in mobile-based public transport applications. By far the most popular type of Geofencing system in use is the mobile-based solution. Thereby, the positioning, e.g. considered with Global Positioning System, as well as the matching with a set of geofences is executed on the mobile device.

Today, mobile specific Geofencing is supported by all major mobile operating systems in form of integrated location-based reminders or as APIs for 3rd Party applications. In addition, several companies provide their own mobile-based Geofencing solutions as part of their 3rd Party Software development kit. Another very potential Geofencing approach is presented in. It is based upon a combination explication of a central component within the infrastructure and a matching engine at the mobile device. In contrast to a mobile-Specific approach, only a relevant subset of all geofences gets observed on the mobile device. Nowadays, Geofencing is related with two main technical demands: fist is to make the less energy devastation at the mobile device within the mobile-specific solution and allowing the matching process within the centralized clarification to scale. The high energy consumption is mainly caused by the positioning modules and is tackled by selecting an specific positioning technique based on the needed accurate the current environment or by adapting the location update frequency according to the speed towards a geofence .

In a centralized solution, the position fixes can be considered through network-centre positioning methods as advised in or being provided directly by the mobile devices itself as proposed within our accession. In both cases, the masters within the infrastructure are responsible to continuously apply spatial matching functions to compare a large amount of position fixes with a huge amount of geofences, in a scalable manner . In particular, if it comes to polygonal-shaped geofences. In, the comparison is executed in a 2-stage process where a location fix is first compared to a set of minimum bounded rectangles of polygonal geofences so that the set is reduced to a related part which should be examine in detail. A similar approach is introduced in where the second stage is optimized by using an edge-specific locality specific hashing design for a more efficient in-detail comparison. in this paper goes beyond the features of all of the Geofencing systems introduced so far and enables the next evolution of Geofencing as described in . It allows the monitoring of targets with respect to multiple geofences that need to be passed in a defined order to trigger a geo-notification. Wherever possible, the prototype tries to make use of methods and approach reviewed above to keep the power consumption low on the mobile device and to scale with the number of clients and geofence approaches by relying on the capacities of efficient geometry storage and matching solutions. Our access is basically a mixture of a mobile-specific and centralized outcome where the positioning is executed on the mobile device and the advanced geofence comparing process is mainly done within the infrastructure.

IV. SYSTEM ARCHITECTURE

4.1 Existing System

Today, location-specific services are an essential feature of mobile devices like smart phones or tablets. While taking the client's location into account, they are mainly used to enable the search for location-based information (e.g. surrounding shops, nearby friends, available rental cars. Thereby, a LBS is being queried and the required information is being introduced by a mobile application only on request by the user. In the existing system user need to find individually point of interest on the map, and there no such provision to provide a point of interest on current location for any to-do list.

4.2 Proposed System

In this project a to-do list is used to get the list of user's interest and by using current location of the user nearby points of interest is notified with best available offers and user reviews. Notifications for order tracking are also provided.

4.3 Usefulness/ Advantages

1. Location-based reminder applications
2. Rating by using user reviews

V. EVALUATION OF SYSTEM FUNCTIONALITY

With the maximum use of smart phones and attraction of smart phones, location-based Reminder services became a hot topic and a great number of solutions were presented. The large number of applications are depend on the idea to present location-specific information in scenario the smart phone user asks for it. A relevant small number of applications are based on geo-notifications that are intended to inform the smart phone user proactively about location-reminder information in case a required zone is entered or left. This paper presents a new approach to push notification to user by accessing his current location for point of interest as per his to-do list. Also a list of different offers and user based rating for point of interest are shown.

5.1 Process Summary

1. Create a to-do list.
2. Identify current location
3. Identify nearby point of interest
4. Get info of point of interest
5. Get user rating by nlp
6. Notify user

VI. CONCLUSION

A new Application framework for the after evaluation of Geofencing was introduced. It is a major task from a mobile specific towards an foundation-based Geofencing system in order to shift the main computation load of forward Geofencing from the mobile clients to the resource-flexible infrastructure. This unclosed up new Outcomes for sophisticated geofence scenarios that phase of the art Geofencing systems are yet not able to process. Hence, it broadens the application range of Geofencing to the fields of e.g. smart retail framework, by admitted system controller respectively local business-person to specify the essential for getting geo-notifications in a far more precise and effective way.

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