Classifieds Posting Application using Peer to Peer Network

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ABSTRACT

The proposed system enables best peers matching across an ad hoc network on a required basis, in a timely and supremacy conservative way. Position coordinates are not sent with each request. The user is built on top of the Barter middleware, leveraging its needed discovery and need-based forwarding. The user is fully implemented as an Android application on top of the Haggle middleware. This system consists also of a cloud-based server, used only when message is obtainable before and afterward the matching of requirement. The server is used for profiling users and creating personalized advertisements for the operators. When communication is reinstated, it can be leveraged for collecting information for other users' advertisements. The server is implemented as a web service. Matching is further leveraged for a smart promoting, enabling the request to reach the best matching user in the vicinity.

General Terms

Requirement matching, personalized advertisements.

Keywords

Advertisements, best matching, Location coordinates.

1. INTRODUCTION

This is an era of Information Technology where receiving information is the base of each and every thing. Today every individual wants to access most of the information from his personal domicile and then do transaction. The scheme would help in effective and systematic access to the advertisements posted by the poster. While coordination and process management is of the highest reputation, there is a need for willingly obtainable smartphone-based resourceful communication. An ad-hoc application that can be operated at a keystroke, and communicate with neighboring smartphones over Wi-Fi or cellular network can be used to post advertisements free of cost. Such communication does not only enable users to convey needs, but can also facilitate the organization of spontaneous, self-organized transactions. At later periods, the system can be valuable for communicating with users in need if their requirements can be fulfilled by other advertisement.

2. LITERATURE SURVEY

[1] "A Buffer Management Scheme for Packet Queues in MANET" by Muhammad Aamir and Mustafa A. Zaidi introduced a scheme of buffer management to handle packet queues in moveable Ad hoc Networks for static and mobile nodes. In this scheme, they tried to achieve effective queuing in the buffer of a centrally communication MANET node through an active queue management strategy by assigning dynamic buffer space to all adjacent nodes in proportion to the no. of packets received from neighbors and hence supervisory packet drop probabilities.

In this paper, best peer to peer is there, a system which delivers elastic data sharing services for business network applications in the cloud based on greatest peer- a peer to peer based data management platform. By integrating cloud computing, databases and Peer to Peer technologies into one system, Best peer++ provides an economical, supple and scalable platform for business network applications and delivers data sharing services to participants based on widely accepted pay-as-you-go business model.

[2] BlockTree: Location-Aware Dispersed Monitoring in Mobile Ad Hoc Network by DominikStingl, Christian Gross, Leonhard Nobach, Ralf Steinmetz, DavidHausheer. BlockTree is a novel, fully dispersed monitoring method for MANETs that influences each node's resources to arrest and allocate the system state to all nodes. Misusing its hierarchical structure, BlockTreeannounces the concept of location-aware monitoring delivering complete as well as combined information. BlockTree provides correct results in the existence of fast moving nodes or over an error-prone communication medium.

3. PROPOSED SYSTEM

Posting advertisements on various sites is the most effective way to buy or sell products. The existing online shopping/advertise/transaction applications tend to be more open and hence insecure on the cost of being global so the proposed system respect the privacy and security of the user and promote the small scale businesses. This android application will help users to post classified locally without internet connection and identity of user would not be disclosed with other users without their mutual agreement. There is use of GPS coordinates of user to find user's location and establish connection between all users in same locality to exchange classifieds. It will implement a neutral mechanism which will provide desired services. It provides environment for microbusinesses.

The numerous components have been designed such as

1. Registration and authentication:

This module is for registration of a user at starting and verifying the user with database maintained for that particular locality or organization for authenticating the user. In authentication process the user's mobile number will be checked with the database and if it does not match then that person will not be provided the access to use the application. If the number matches then the mobile's IMEI number will be

mapped to that user's profile so that blocking of fake classified owner will be done by the admin.

2. Location:

For controlling, organization and speeding up the process the clusters of users are maintained. It even reduces calculation for path tracing. These clusters are based on physical location of the user. Physical location of the user can be tracked with help of GPS or GPRS and for this purpose Google maps API is used so as to find the current location of the user.

3. Clustering:

Cluster is basically a group of objects sharing similar properties as that of objects in same cluster and dissimilar properties as that of objects in other clusters. So here users are objects and they are clustered together on the basis of their physical location. Basically cluster is a router through which all the users will get connected to server and get their needed services faster. This clustering is made by clustering algorithm - K-Means algorithm.

K-Means is one of the simplest unproven learning methods among all separating based clustering approaches. It classifies a given set of n data items in k clusters, where k is the no. of desired clusters and it is required in advance and it is provided by the programmer. A centroid is defined for each of the cluster. All the objects are placed in a group having centroid adjacent (or most similar) to that data item. After processing all data items, k-means, or centroids, are re-calculated, and the whole process is recurrent. All data items are guaranteed to the clusters based on the fresh centroids. In each repetition centroids alteration their position step by step. This process is sustained until no centroid move. As result, k cluster are found representing a set of n data objects. This algorithm progressively improves the clustering quality and approaches a local optimum.

4. Information exchange:

Users in the nearby vicinity will get synchronized to each other to share the classifieds. For this cache coherency is maintained with the help of MESI protocol and master slave configuration.

- Explanation of Master- Slave:

While the two devices are in synchronization, the classifieds both of them are having will be shared with each other. For the purpose who will share the classifieds, master- slave configuration will be used. The one out of the two will act as master and the other will act as slave. The device having less data will be chosen to act as master. The slave will then send all the classifieds which master is not having to the master. For avoiding the duplication of classifieds index will be checked. And in case the connection is lost or there is no synchronization then this context will be stored with the server for resuming the sharing of information when synchronized again. Starvation may take place if particular device is only sharing classifieds but not able to receive any.

5. Agreement:

The admin (server) observes users activities continuously andnotifies them about fulfilling and expired classifieds. If both the parties i.e. buyer and seller agrees to organize transaction by each other mainly then server sends them their contact numbers for further communication. For this purpose observer pattern algorithm is used, with this algorithm the server keeps check on user's activity. If server finds trigger

words like fake or false then the server blocks the user about whom the comment is made.

4. ARCHITECTURE

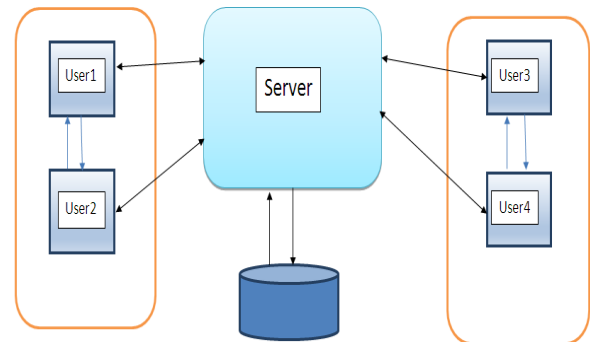Here the architecture shows how the system is going to work:

Fig1: Architecture of the system

User 1,2,3,4: Users which are transferring notification from one Mobile to other

Database Server: Used for checking of Authorized user and prevent the fake users to use this application

Blue Arrow: Indicate the transaction between the mobile phone

Black Arrow: Indicate the data exchange between user's mobile phone and server

5. ALGORITHM

1) Google maps API:Forfinding current location of the user.

2) Clustering: K means algorithmThe k-means algorithm is aprocedure to cluster *n* objects based on features into *k* partitions.

In this project objects are users and two attributes are taken: x axis and y axis as coordinates of the user.

3) SynchronizationIt is used for synchronizing communication and for exchange of information among multiple users.In this algorithm MESI protocol, master slave mechanismis used.

4) Observer PatternServer continuously observes every users activity. It observes whether the requirements are fulfilled and it also checks if the advertisement has expired or not.

6. CONCULSION AND FUTURE SCOPE

Classified advertisements websites are a one stop shop for all from jobs to apartments to furniture. However, consumers don't buy anything directly on classified sites, they use the sites to set up meetings, and dealings are conducted in person or by mail a characteristic which splits online classifieds from public sale or shopping websites like eBay and Amazon. Functionalities of these advertisement sites have been reduced to local communities to remove dependency of internet and make it more usable for local crowd.

Future Scope

- Globalization of various local service providers.

- Bluetooth based communication.

- Dynamic application for both local and global use.

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8. REFERENECES

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