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1. **Keywords**- Route Finder and locater services, locater, Geo Talk, IVR(Interactive voice Response), Automatic Call Distribution(ACD)

2. **Introduction/Abstract** – Many a times we face a situation where we are lost in a new place and do not know how to reach our desired destination, sometimes we face an emergency situation like meeting with an accident or running out of petrol but don't know where the nearest hospital or petrol station is. To solve this problem we propose a telecom service provided by telecom operators, the main intention of this service is to help people find the way to their destination and find out emergency services and other important locations near them without using any GPS or Palmtop.

3. **Methodology/Approach**- There is a basic problem for everyone if he/she visits some location either first time or occasionally to reach his/her destination. Every time we need to ask some one how to reach some specific place if we miss placed somewhere. This problem is related to all pedestrians or vehicle holder to reach some Residential Area/ Building Society/hotel/restaurant/Cinema theater/Motorways/Highways/Dual Carriage ways.

   To solve this problem we proposed there should be system (Geo Talk)
   The basic idea is to provide the service in two ways, either through a voice call or as SMS.
   For the voice call the user would dial the number and give his current address/location and where he wants to go, after this support executive on the other end would run the route finder algorithm or as per his/her knowledge and convey the results i.e. how to reach the desired destination to the user over phone. As we have lot of GIS DCA at several branches of Info tech, These DCA have extensive knowledge of Tele Atlas Data for US, UK etc. countries so we can use these DCA knowledge for supporting customer query to reach their destination. This can be done by IVR system. We need to publish/Advertise some special phone numbers (e.g. we have 100,999). Customer/Pedestrians/ Vehicle holder just needs to dial that specific number if they lost some where or need helps to reach their destination. Customer needs to tell his current location and where he/she want to go/reach. The IVR System will transfer the call to available DCA and that DCA will response to customer query. Call Transfer can be done by Automatic Call Distribution facility of Geo Talk. The basic features of ACD are as:-
   - Automatic Call Distribution (ACD)
   - Popup of Customer Data on Agents' PC if he/she is existing customer
   - Predictive Dialing
   - Call Logging
   - Conferencing
   - Database Update for MIS purposes

   Through individual agent/DCA can't idle for a long time. Administrator can also decide the group of agent on the basis of their skill set (e.g. UK, US based query), so that the call will be transfer on the basis of skill. All the switching functionalities and

the recording activity are taken care by the software. Thus software enables smooth running of call center procedure in the presence or absence of agent/DCA.

The second option is via SMS Service. As an SMS service the user needs to send a text giving his present address and destination address in specified format, then after running the route finder the results would be messaged back to the user.

People- i.e. For Instant response of Customer Route finder or any general Query like which hotel/hospital/ theater is nearer to their location DCA must have in depth knowledge of that particular Country/location Area. DCA can response customer query as per their knowledge or they need to train on how to use the route finder application along with some soft skills training to deal with customers

Process – i.e The following quality processes are to be followed

- Updating the spatial data regularly so that it reflects the recent developments and also train respective DCA/Mobile operator.
- Making sure that the response is given to the user in a specified amount of time
- Call is properly transferred to respective Geo Specialist (DCA) within a minimum time frame. Customer just needs to dial/press their option which is provide by IVR e.g. Select your country code(1 for UK, 2 for US) etc so call is transfer to respective Geo Specialist (DCA)

Technology The following technologies would be required for meeting the purpose

Mobile Interface:-This part would deal with parsing the text sent by the user and initiating the Route finder algorithm, once results are returned from route finder the results have to be formatted and conveyed to the user as text.

Route finder:-This is an algorithm used to find the shortest route between two points with full details of path chosen.

GIS data: - The spatial data of a city covering all roads, business locations and residential housing.

IVR with ACD:- Interactive voice response system must have Automatic Call Distribution facility, Once your dial/press his option like from which country/state he/she is dialing number, ACD will dial to respective DCA(mobile operator) so that user don't need to wait for a long time and he/she will get correct response because he/she will be connected to GIS Specialist of that location. If in case he/she presses wrong key then call be diverted to dedicated operator.

Using Geo Talk facility customer does not need to carry expensive GPS /Palmtop, he/she just need to dial or send SMS to some special number and he/she will receive Correct result but for that customer need to pay some high charge for call/SMS and **InfoTech can receive money from Service provider for these call/SMS.**

4. **Key Challenges-** The main key challenge to implement Geo Talk is that InfoTech needs to tie up with some Telecom Company so that we can user their calling/SMS services to generate revenue, the other issue is to implement IVR with ACD facility but we can implement IVR with Automatic Call Distribution using Dialogic Card and its API or using MAPI.
   Some of the key challenge would be integrating different systems like an IVR with ACD and the route finder algorithm for the SMS service.

   Customer can reach their destination within Rs10/- or 20/- as we charge some amount of money per minute or per SMS.

5. **Recommendations**
   It is better involve Geo Specialist (DCA) who have in depth knowledge of GIS, Involve Developer who have enough knowledge of Implementing IVR with ACD facility. We think there are several IVR systems for different section like in Banks, Hospital and Colleges etc but there is no IVR software for normal people. So if InfoTech take initiate in this domain then InfoTech can generate more revenue because this would be unique system for general people.

6. **Lessons Learned-** Better to involve key person from their respective area to implement **Geo Talk**.

7. **Summary/Conclusion.** This sort of service would benefit IEL as well as users, IEL can play an important part as it already has several route find and related algorithms along with expertise in spatial data, this would make IEL as preferred company to handle the backend part of the service. IEL already have almost whole word GIS DATA information.

   The following are the advantages to the user
   - Cost effective for the user, the user need not carry any GPS navigation system with him or her.
   - High reach, since the service is provided as a text message or voice call all users have access to it, irrespective of their cell phone model and software installed in it.
   - Extremely helpful when someone is lost and needs to find a hospital or car repair, residential area etc immediately.