

# Service Direct : Platform that Incorporates Service Providers and Consumers Directly

A. Mary Psonia, S. Vigneshwari, Albert Mayan J, D. Jamunarani



**Abstract:** The main purpose of this platform is that the service providers get the whole credits without any involvement of the commission agents. Various services like plumbing, carpentry, pest control, electrical, tuition, are listed as professional services in this platform. Unlike the other available applications, it also lists the available people who are ready to serve some basic non-professional services like acting driver, temporary child caretaker, pickup and delivery of emergency items. Also a corporate person during his/her duty can make use of this application to earn additional income by serving some non-professional services. The customer can make an account and search for the necessary service nearby. This platform helps the customers to fetch the contact details of the service providers nearby. From enumerated list the patrons can choose any provider based on either the reviews or the shortest distance. The patrons and providers can make flexible appointments. Every successful appointment is noted and a log is maintained for security reasons, so that the providers can be tracked when any criminal activity is detected during the appointment.

**Keywords :** Local services, Location based services, LBS, No commission agents, No broker, services.

## I. INTRODUCTION

A location based service is a service at software level that uses location data to control the features. As such services are an information service and has a number of uses in social networking today as information, in entertainment or security, which is possible with a device that can access geographical position and its details. LBS can be used in a variety of contents, such as health, indoor object search, entertainment, personal life, professional life, etc., this LBS plays an important role in business as well as government organizations. Many private organizations provide location

based services but are limited to certain aspects like major cities, the number of staff etc.

The idea is to develop a platform that overcomes the above limitations and also provides additional features to different beneficiaries Fig. 1. These location based services in our frame include services like carpentry, pest control, care takers and different home services. Even out-of-fuel situations or flatten tire problems also can be addressed. The main feature of this platform is avoiding intermediate commission agents which in turn increase the pay to labor and decreases the service cost to the users. Here the users and service providers are allowed to contact directly using the platform without any agents. This helps the service providers to get their whole credits and pay worth their work. The general platforms are owned by single organizations and provide services they can, in their feasible places. The organization hires a set of services provides and appoints them to the users' requests. This requires the employees to be experienced and well settled in their profession, to be in the organization. And the number of employees will be limited. They have to travel from one end to the other end to service the request. This demands huge capital and resources. This in turn increases the cost of services and limits the pay to labor.

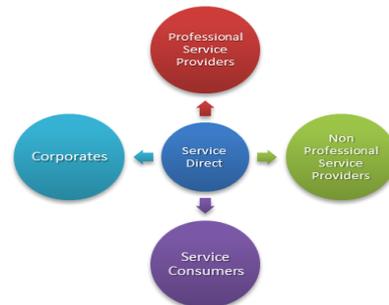


Fig 1. Beneficiaries of the platform

Users can select their providers based on the cost, reviews or distance. The users select providers from the enumerated list and contact them. Then they can book an appointment based on time feasible for both user and provider. The service cost should be mentioned by the service provider. As there are no agencies or organizations linking the service cost will definitely decrease. When it comes to security all the appointment logs will be maintained and shared with the security departments like local police department. They users can alert the security departments via platform in case of any suspicious activity. They take the necessary actions to rectify the problems and see that none of such occur in future.

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This will assure the security and best quality services to the users based on their needs and providers will be satisfied and get some recognition professionally. The contributions of this paper are that skilled persons who are seeking others' help can no more look for help and can start their own businesses. They moreover doesn't need a workplace to initiate their business or services. Also the paper discusses about the delivery of cost effective services to the public due to the absence of the role of commission agents. The registration process Fig. 2 is a way far different and is secure so that only genuine users are given the accounts to use the service direct platform.

### II. EXISTING SYSTEM

Now-a-days it is important to help people save time and reduce work by automating [1] the process or by making it easy to find the alternates who work for them. There are several methodologies [2] to implement this LBS. Some of them are like "to process location data on a server and to forward the generated response to the clients" or "to find location data for a mobile device-based application that can use it directly". It was mentioned by Priyanka Shah [3], that there are several functions to find the location of the user and also to trigger actions based on their location. As location based services these days are on the highly demanded services list, most of the organizations are trying to make use of it. Many organizations have grown big in this field, for example Urban Clap [6], Housejoy [7] etc. But all these platforms are owned by a one or a single group of business persons. They hire the professional service providers with a set of skills and distribute the services when requested. The point to be considered is they recruit only the well-recognized professionals. Not everyone can get into that. They make the employees work more than their pay. There will be no time flexibility for the employee. Every decision will be in the hands of the superior. The employees work hard but don't get paid worth their work. These agencies make money from the commissions they get from each service the employ did. This raises the cost of even a very basic service, to clouds.

### III. PROPOSED SYSTEM

Service Direct: the platform is promoted and all service providers from different fields are encouraged to register themselves. The registration process Fig. 2 involves, the provider submitting his/her personal and professional details. Personal details includes valid proofs like Adhaar, Gas connection, etc., are collected and verified. Professional details like area of expertise, type of service, experience level, etc., are collected. All the details are thoroughly verified and each providers' account is activated. Using his/her account the provider can see the requests of the users, book appointments and provide the service. The providers also can add and delete the services they provide from the list. They

can change their account settings like on-duty and off-duty for the optimal solution for the user's request.

The major extension in this platform is that the provider can change his place of work and can choose to work in different places i.e. where ever he/she goes. Layout, and choose "apply to whole document" from the dropdown menu. For example the provider will not be available in his native for a period, then he can change the place of work and service the users on the other location or place. This gives the provider hand full of work and helps to earn where ever he goes. When we come to the context of users the interface, registration and the process will differ from the service provider. The user should visit the platform, create an account providing his basic details like name, address, contact number etc., through social networking accounts like Facebook or using Mail Id.

The user can choose the type of service he wants to avail, describe the problem and search for the provider near him. Then the list of the providers around them with ratings, distance, experience, reviews will be displayed. The users can choose one of the providers based on their ratings or reviews or experience. Then the contact details of the provider are displayed.

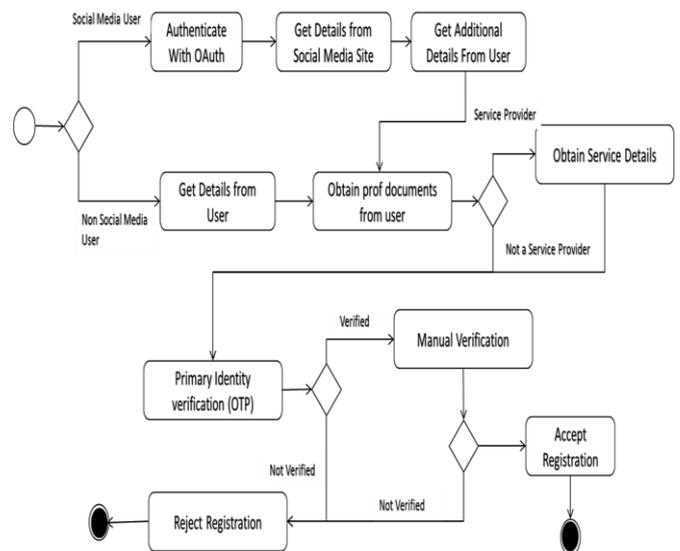


Fig. 2. Flow Chart of Registration Process

Customer can contact the provider, describe the problem, get the estimated cost, book appointment and schedule the service. A notification will be sent to both the user and service provider about the appointment Fig. 3. All the appointments and visits of the service provider are logged for security purposes. After the work is done the user can pay the provider in any means like online or cash etc.

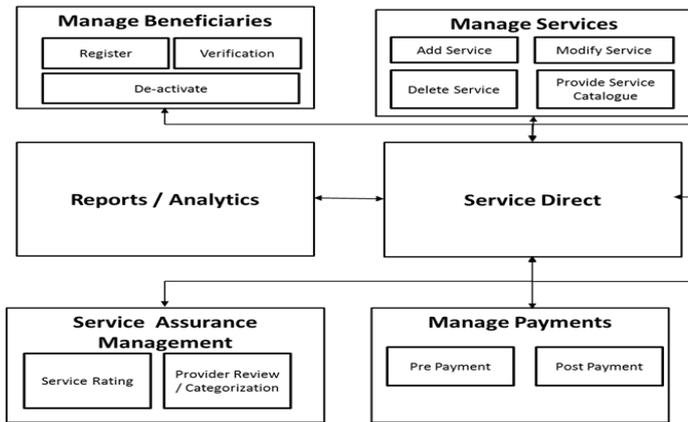


Fig. 3. Modules of the platform.

All the logs are collected and shared with the security department like police department. This platform can also provide immediate services like delivering a small package from one place to another when a person is on that particular way, i.e. a cab driver can deliver an urgent package from one place to another along with his customer on his way to their destination. Using the data collected from the transactions, many analytics can be applied on and different reports and facts can be generated which can highly influence the modern way of business

#### IV. ALGORITHMS

Pseudo Code/ Equations used.

##### A. GPS coordinates from location area

```

$url = "http://maps.google.com/maps/api/geocode/json?
sensor=false&address=". $address;
$response = file_get_contents($url);
$json = json_decode($response,true);

$lat = $json['results'][0]['geometry']['location']['lat'];
$lng = $json['results'][0]['geometry']['location']['lng'];

return array($lat, $lng);
    
```

##### B. Spatial Distance Calculation.

```

teta = (from_longi) - (to_longi)
dist = (sin(torad(from_latit)) * sin(torad(to_latit)))
+ (cos(2rad(to_latit)) * cos(2rad(from_latit))
* cos(2rad(teta)))
dist = a cos(dist)
dist = to degree(dist)
miles = dist * 60 * 1.1515
kms = miles * 1.609344
    
```

#### V. RESULTS AND DISCUSSIONS

For example, if we consider some real time services and compare some of the attributes regarding the services, we can tabulate the information as mentioned in Table[1] between manual and the proposed platform responses.

TABLE I  
ATTRIBUTE COMPARISON

	Fixing a fan by an Electrician		Changing a water tap by a Plumber		Hiring an temporary personal assistant	
	Manual Method	Service Direct	Manual Method	Service Direct	Manual Method	Service Direct
Cost (in Rs.)	300-400	200-300	300-400	125-175	300/hour	200/hour
Time to respond	More 2 hours	Within 30 minutes	More than an hour	Within 20 min	1 day	1 Hour (s)
	Material Procumbent	Finish Service and Raise Invoice				

#### VI. CONCLUSION

Therefore Service Direct can help the providers get whole credits worth their work. It generates lot of employment opportunities to the unrecognized and poor providers and help them to lead their lives. This helps everyone who knows work to build a professional career. Also the users get their chores done in the minimum reasonable prices. Even the professionals make use of their free time to help others. In such ways the Service Direct can help people of all professions and non-professionals that includes common people of the society.

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