

# HSPM (Hardware and Software Product Management) Solutions

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**Abstract**— Currently the systems which are going down in various sectors are taking up-to 2-3 days to get restored to working state which is a huge drawback in today's tech-savvy world and also a drawback in achieving Digital India. In today's world every process is somehow related to computer systems in various ways and every industry is using systems on large scale may it be manufacturing , educational , banking etc. so if the system crashes it's a huge loss/problem to stop the processes for a day or two in medium and small scale industries as they cannot afford proper full time IT employees .Also the problem arises is that services are not available 24x7 in the market so it's a loss/wastage of time , currently these problems are being resolved/diagnosed in 2-3 days. This Issue will be resolved by HSPM Solutions by assuring Diagnostic Guarantee of 90 mins at client's doorstep. The diagnoses will be applied on the devices within a stipulated time period of 24 hours and getting a detailed report about the issues which the devices are facing will be generated. HSPM Solutions will be covering majorly devices related to computer systems like smart phones, tablets, laptops & desktops. The Procedure will be completely based on online platform starting from the raise of request from the user side till the final step of payment acceptance.

**Keywords:** HSPM Solutions, Desktop, Laptop, Repair, Android

## I. INTRODUCTION

HSPM Solutions is an application which will provide computer technicians at doorstep at a single click. This application is indented to focus on the domestic households, small businesses / firms and schools. Our Application content services for both client and employees.

Two mobile applications as well as one desktop application. The two mobile applications will serve the user and the client whereas the desktop application will serve as central monitoring system.

The requests which are being received on the app will be further extended to a real-time database which will be linked to employee (Backend) application through which employee can accept the request and further track clients location based on Google Map API.

The user (frontend) application will further extend and also accept the payments digitally through a payment gateway.

## II. DESIGN AND DEVELOPMENT

In this project, we are going to develop HSPM Solutions application that helps the user to get prompt service for his device at his/her door step. The proposed model follows through which a user will input specifications of his/her request and location and the system will assign a technician according to the location. There are seven main steps involved in the implementation: Registration, login, request raise, information input, accepting the request by the employee, request completion, review & feedback, generate invoice.

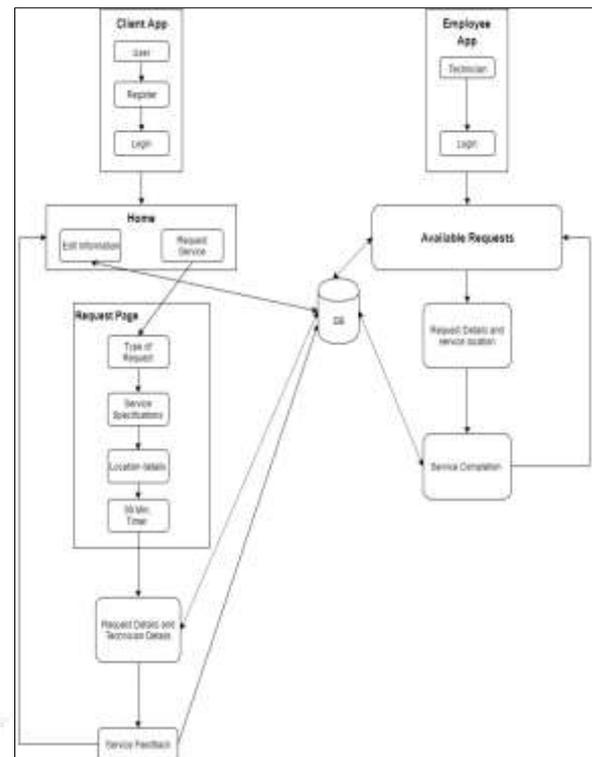


Fig. 1: Workflow model of System Architecture.

## III. LITERATURE REVIEW

### A. Determining the Purpose of Study:

The reason behind this project is there are no quick services available in the market in the field of computer hardware repair and diagnosis. There's a big problem facing by firms and domestic households. There is lots of time wastage till the hardware becomes ready to use, it's a big obstacle faced by peoples who is not from IT background.

There also being Students from Small scale business background we found that same problem persist, the student cannot afford hyped services. Students from small background cannot afford buying a new computer system and laptops.

To reduce this major problem HSPM solutions provides the service with 90 minutes consultation guarantee and also provide assembled computer system as per user's requirements.

### B. Market Description:

HSPM was inspired by the thought of providing a beneficial services related to Hardware and software product for small scale industries, non-IT firms

In various sectors are taking up to 2-3 days for repairing the system. To overcome these market problem HSPM solutions gives the solution by providing services related to hardware and software problem within 90 minutes.

There are the user who wants laptops for short time period for their project work, office work, gaming etc., so

we will be available for renting laptops as per the requirements of the users.

### C. Create Opportunities:

HSPM solution creates opportunities by providing placements for those students who have good knowledge in hardware and software & who are interested to do career in hardware.

From the future perspective we will hire technical employees who have technical knowledge about computer hardware.

We arrange Hardware training sessions for students.

Basic software training sessions.

System maintenance training sessions.

### D. Looking at Industry's Outlook:

The HSPM solution mainly starting to provide the hardware and software services in the Pune city. After launching the company in the city so many request are generated. So the growth of company in market is high.

### E. Competition:

Currently Our Competition with "Local Service Providers" and new immerging company "URBAN CLAP".

Local service providers don't provide exact information about the problem. They take one or two days to diagnosis after that they start repairing of the device.

But HSPM Solution provides consultation guarantee within 90 minutes.

We will provide reasonable and less rates as compared to local service providers.

## IV. PROPOSED SOLUTION

We are planning to develop a platform which will enable users to request a technician for the technical faults which they are undergoing with their respective devices. The platform will basically consider two mobile applications as well as one desktop application. The first mobile application will be for the users to raise a technical request; the second mobile application will be for the technician to accept the request whereas the desktop application will serve as central monitoring system as well as central database for the mobile applications.

The user application will consist of a secure login model through mobile authentication which enable user to request an OTP (One Time Password) for their unique mobile number. The user application will consist of Google Map API which will help him/her to dynamically provide the respective locations which will future used by technician application.

The user application will consist of a secure payment gateway which will enable users to pay through different payment modes like Credit Cards, Debit Cards, Net Banking, UPI & mobile wallets securely and digitally

The 2<sup>nd</sup> mobile application which will be used by the technicians will consist of a Google Map API which will help them to fetch the client location which I captured by the user/client application.

## A. Screenshots

### 1) A Client/ Customer Application

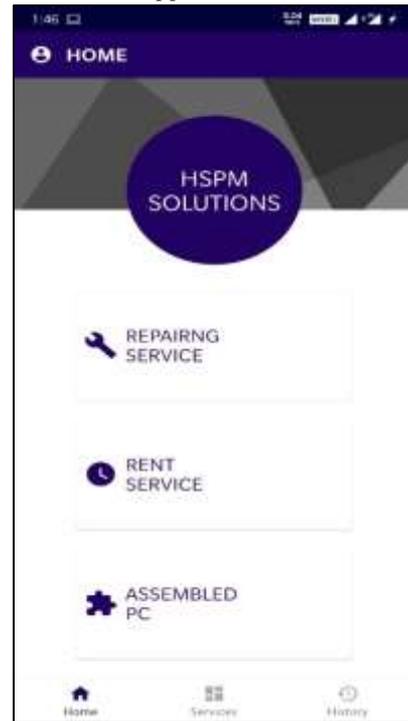


Fig. 1: The Home Screen when the user logs in into the application downloaded from playstore he/she will be redirected to this page where broad categories of services are provided.

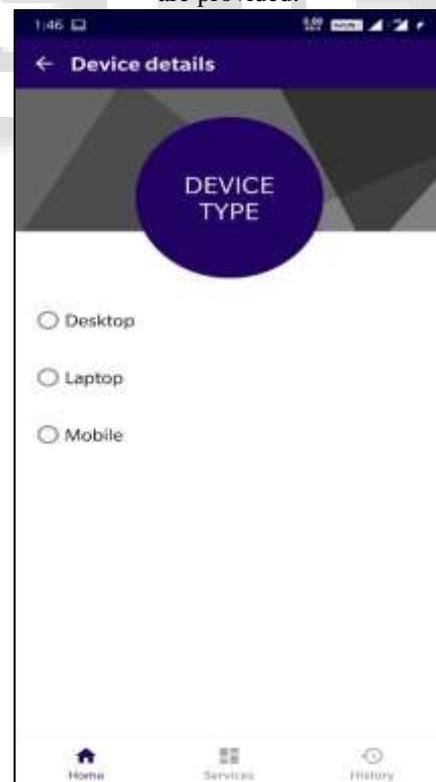


Fig. 2: The User once selected the Repairing Services will be redirected to the second phase where the type of the device is to be selected under the "Device Type".

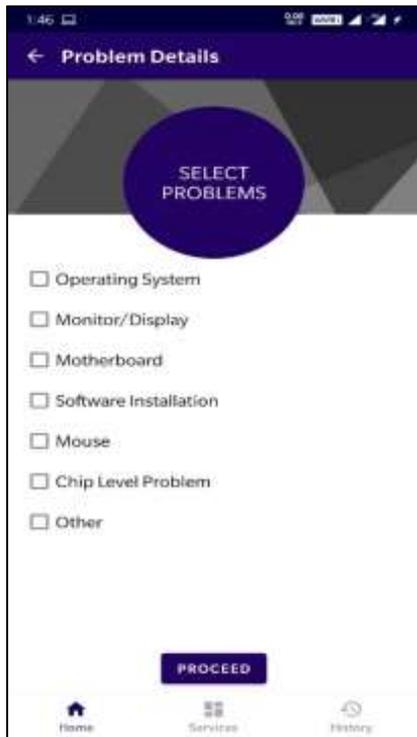


Fig. 3: Selection of the problem which the device is encountering after the user/client has selected the particular device type which will help in generating the feedback for the technician side giving the technician brief about the problem.

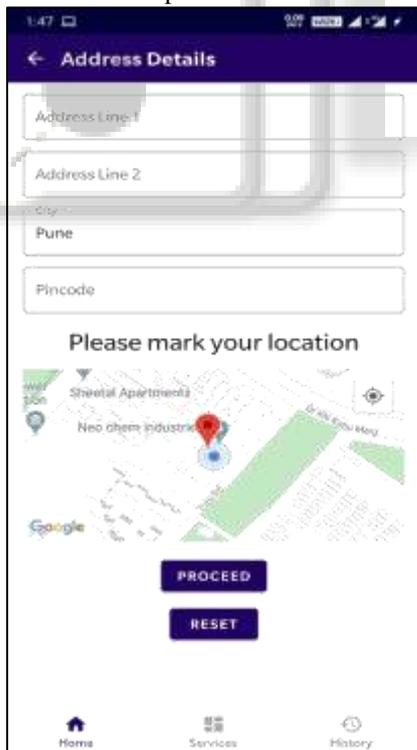


Fig. 4: Once the device type is selected and the problems being faced are marked upon the user now needs to enter its location details so that it can be captured by the application on cloud and can be updated to the incoming technician for easily locating the client and providing with advanced transit options without calling or disturbing the client.

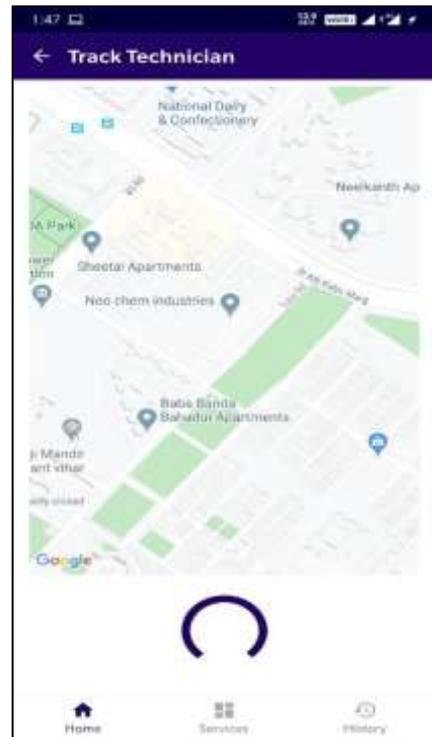


Fig. 5: once the technician accepts the request & start heading towards the client using the map API, user can track him/her using the map API and the location of the technician in the real-time.

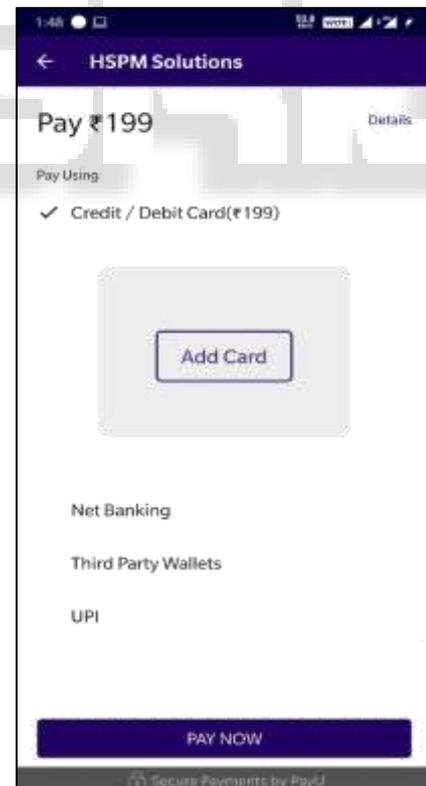


Fig. 6: The technician raised the bill from the backend application which was popped up to the customer demanding for the payment, the customer/user is then have the feasibility to pay with the listed options of payment using the payment gateway.

2) Employee/ Technician Application

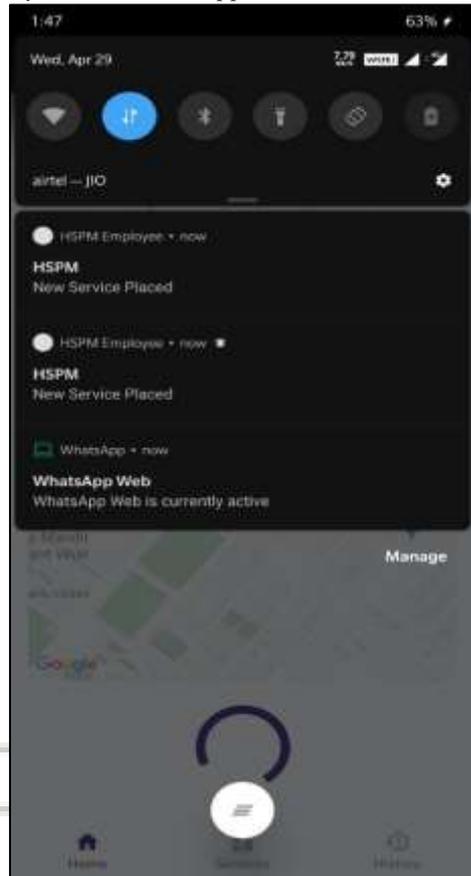


Fig. 7: once the client places the request the technician gets an incoming notification for the new request on the backend application which is available for backend/technician.



Fig. 8: technician will be able to see the new request in his/her app under all pending request or home page on which the technician is redirected once they open up the backend application. The detailed description of the service is visible to the technician including the device type, problem & location. Hence once the technician accepts the request from the backend application the client or user is informed about the request acceptance.

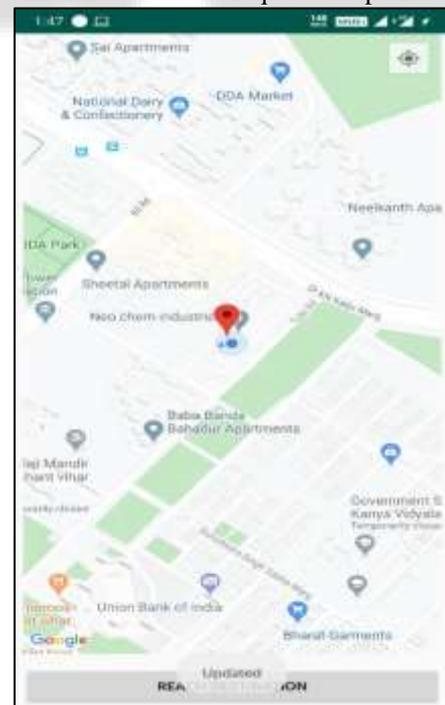


Fig. 9: As shown in the above figure the technician can directly route to the user by clicking on the captured and marked location of the client/user which they entered while placing the service request.



Fig. 10: Once the device has been repaired and or delivered to the customer the technician from the backend application is able to generate a bill which is then sent to the customer in real time for simultaneous payment and closing the request which is raised successfully.

#### B. Future Scope

In the upcoming time period we are also planning to innovate and start the concept of PC Renting that will be affordable and a concept for the students or people who are unable to purchase the systems.

As we are moving towards Digital India Computer System is a must need for the various developments as well as study perspective.

In the near future we can evolve by making the platform completely online for consulting the clients for a particular type of computer which is required for his/her needs.

We will be providing job opportunities for college graduates to work for full time with a good pay. We will be providing internship in which there will be live hands on training.

#### V. CONCLUSIONS

We propose HSPM solution for the non-stop working of Digital world. We are going to develop an application through which you can call and service at your doorsteps with just a click. We will develop automatically location extractor that will extract your location easing for the user. We will develop feedback system to track our technician behavior and professionalism at the time of service. We are providing user friendly environment to user such that they can perform their work in an efficient manner. As the application is cost effective as it provides doorstep service it

would be used by the college going students. Non-IT corporates will have full time technical support which will benefit them in focusing on work.

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