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CSTS-A New Model using IoT (Internet of Things) to Solve Client based Technical Problems

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ABSTRACT:The Internet of Things represents an emerging reality where everyday objects and devices are connected to the Internet, most likely wireless, and can communicate with one another at some intelligent level and it is a customer-oriented software application service. IoT provides open access to selected subsets of data for the development of a plethora of digital services. Nevertheless, as we are aware of IoT rapid development in smart home applications, Smart city, Smart grids, connecting car, smart supply chain. On the other side, we don't have any technology to represent or to solve a better way for client-based technical problems. That means, if a software issue arises like unable to maintain business websites or any software application development or maintain software issues or any security issues, generally we don't find immediately, the technical persons to solve the software issues. This results in time-consuming and unable to meet the project deadlines. I like to represent a new model called CSTS (Client Software Technical solutions), it mainly deals with client software problems and connecting with technical people and giving appropriate solutions by using IoT technology. The main aim of this technology was bringing techie (technically related persons) and the Application users into a single platform.

KEYWORDS:Internet of Things (IOT), IOT features, IoT gateway, Client based technical solutions.

I. INTRODUCTION

These days many people are facing a lot of software problems like unable to maintain their websites, unable to produce their products using websites, mobile software problems or system software problems or to create websites, any software projects or any software issues we don't have relevant person or unable to meet deadlines or we don't have any technology to connect clients and technical related people in a single platform. [1] So the people are also facing many authentication problems in banking sectors or any type of software problems we don't find appropriate person or programmer as earlier to solve the software problems. So, as a result, we are not delivering our project on time or maintaining websites. [2] Ultimately, there is a customer's dissatisfaction. So entrepreneurs are unable to bring their products to people. On the other hand, nowadays we are seeing many Technical people who are not getting appropriate projects Even though they are skilled enough, they don't have standard projects and jobs. They have almost downfall in their career. [3]

II. PROPOSED SYSTEM

This Research Proposal aims to explore a new technology to solve the software problems that we are facing nowadays. [16] This CSTS is useful for any purpose like people can get better software solutions and services on time and also the techies who are skillful and who are skillful but they are unable to find the jobs, also they can get more profits. [17] So it does not only give the better services to the people also the Techies are profitable ultimately the CSTS also provides the best opportunities to the young techies. So it will be useful in any way. CSTS makes connecting clients with techies and provides the best software solutions depending upon client requirement and provides solutions on time. [18]

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Using this technology client can get their location-based services that means technical persons will reach the client location and they will provide technical services to the clients and techie may provide technical suggestions to the client if the client requests suggestions.[3]

As we have seen there are many uses by introducing the IoT technology. But using the IoT by representing a new technology CSTS we can also bring solutions to client technical problems on time and also this technology helps to bring clients and technical people into a single platform.

Using this CSTS technology client can get better technical services on time and it is also helpful to the technical people that they can earn more. CSTS is also a clear channel for communication of two devices and this technology also useful for tracking the client's records. [6]. By using this IoT technology we can tackle the present scenario in which we can have portable accessing to this CSTS application on both the client and techie devices.

The IoT technology does not provide the communication channel but also it manages and processes information. In this proposal mentioning that a business model simply taps into data enabled by IoT. The IoT technology is to inter-connected devices where the devices are smart enough to share common information with us, to cloud-based applications and each other (device to device).

III.WORKING OF CSTS MODEL USING IOT

CSTS is a new technology in IoT which brings both the clients (who are willing to the technical service) and techie (who are going to provide their technical service) into a single platform called CSTS. The CSTS provides a communication channel between the two devices. First of all, both client and techie devices are connected to this CSTS device. Here this CSTS, technology acts as the application gateway between these two devices. A connection will be formed between these devices. [22] Here, the client can make a new request using CSTS technology and techie can search for a new request from the client. Once, the client makes a request the CSTS technology further divides into four phases. The various phases in CSTS technology are represented below. This CSTS model retrieves the data from the client and it passes the data into various phases as shown below. In this model every Phase takes some input from its previous stage and it generates its response to other phases, if any error occurs it aborts the current phase and it generates the failure message to the client device.

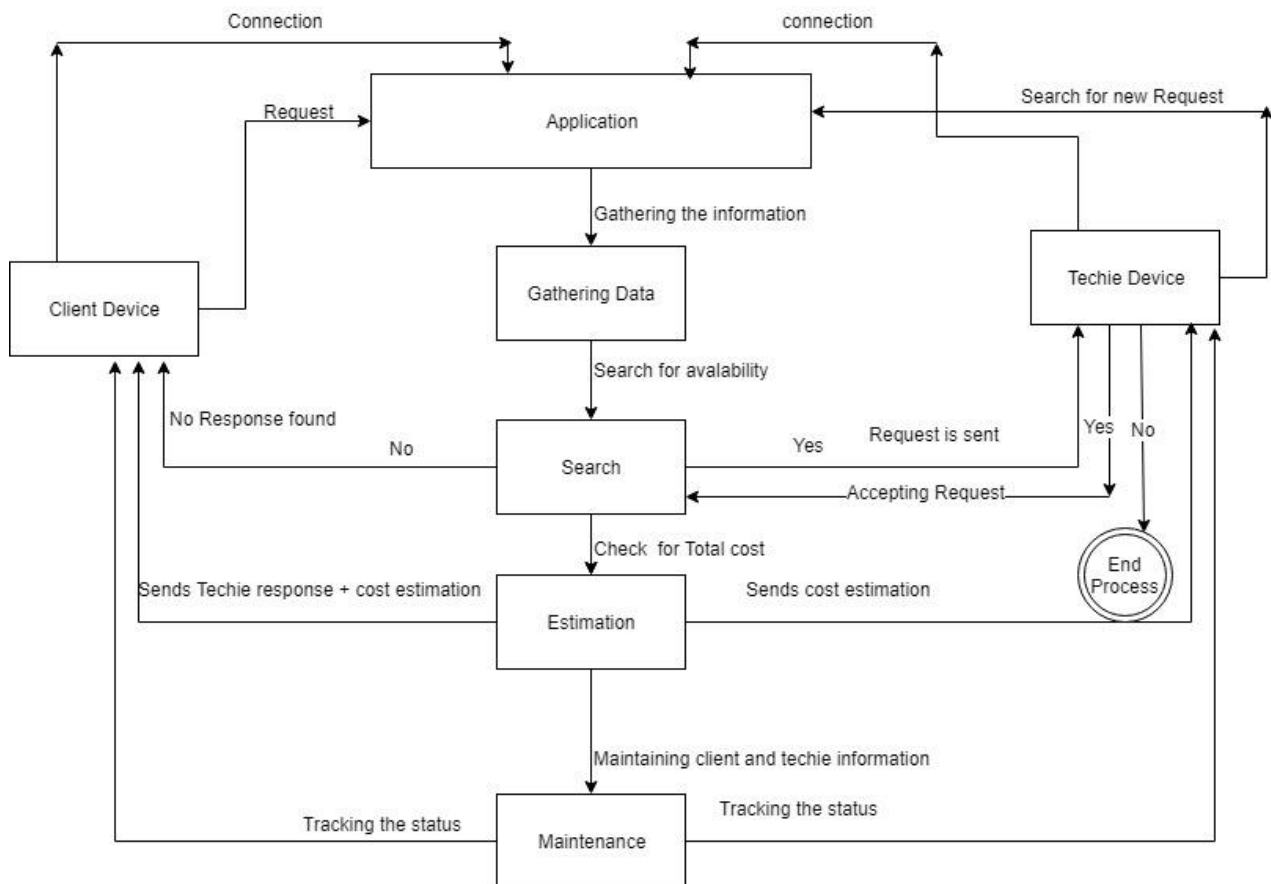


Figure 1: The above figure shows how the CSTS model works using the IOT technology

In the above Architecture, The Application represents an IoT technology and how it is connected between two physical devices 1) Client Device 2) Techie Device (Technical Related Person). Both the devices are connected to the application. Here IoT acts as a middleware network and it is a communication channel between the devices. [20]

Furthermore, the Application is divided into four different phases. 1) Data Gathering 2) Search 3) Estimation 4) Maintenance. The various phases represent as to how the communication takes place between the two connected devices. Datagathering used for gathering the client requirements. Search phase is used to know the availability of technically related persons. After finding the appropriate person the next phase is Estimation phase, this phase is to estimate the cost of the technical service.

Next, maintenance phase, this is the vital phase in the CSTS, because this is the direct communication channel between the client and the techie and it is also used to track both the client and techie information and it maintains the data on both sides.[7]CSTS is a new model for application technology in which this technology provides the software services. Let us discuss various phases which are involved in the process in-detail. [21]

A. Gathering Data: In this stage the data will be gathered by the CSTS from techie. This phase includes the request details from the client. It stores the data from the client, this includes all the information about the client. It checks the proper data from the client, it looks about the client authentication. It is a client side phase where it verifies the client data. After, by successful completing the criteria it will go to the next phase.

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Once the legitimate application user enters into the CSTS gateway session, the client will enter the details about their software related issues in the application. So this CSTS acts as the gateway between the client and the techie devices and which gathers the data on both sides. This phase is responsible to take the functionality of the product between the client device and the techie device.

B. Search: After the data gathering next phase is search phase, in this phase it is multi-channel in which the information is sent on both the sides. It always searches for the next available techie with respect to the client request. It generates the auto trigger for a searching criteria in which, if techie finds, it auto generates the client request to the techie. If the techie accepts the request and the response will be sent to the next phase that is estimation phase. Otherwise, if a techie discards the request or if a related techie is not found, the search phase will terminate the process and it sends no response found message to the client. This phase searches the relevant data corresponding to the client request. The allocation of the devices have been taken place in this devices. It controls the exclusions and allocates the request to the appropriate technical person. It handles the client's request and it can handle the multiple requests. It follows the time slicing between the each request. It would be able to provide priority over the first come and first serve.

C. Estimation: After, successfully completing the search phase the next stage is estimation. In this estimation phase about the cost estimation is discussed between the two devices that is both the client and techie. It is a software metrics in which it intimates the cost per lines of code and time taken for the task completion. This is the decision making phase in which the cost estimation is sent to the techie and cost estimation plus techie's response is sent to the client. It is a proper channel in which it makes budgetary values, and it also displays the estimation time on both the devices to serve the client's request. Estimation refers to the scalability of the software services and it regulates the cost benefit analysis. It takes the software metrics and sends the estimation to both the client and the techie devices. It calculates the cost of the software services is equal to the lines per code.

D. Maintenance: This phase is called maintenance after the completion of estimation phase. This plays a pivotal role to both client and techie devices. This is because, Maintenance phase always handles the client's request at one end and the other end it tracks the details about the techie. This maintenance phase estimates the cost, track the service details and also maintain the data logs between the two devices. This phase illustrates the information the client and techie. Maintenance phase is responsible for servicing the request and the services maintenance. It not only maintains the request on the other side, it is also used for post-delivery maintenance.

This phase creates log between the client and the techie and it is a non-trivial phase which tracks both the device details. Since it denotes the potentiality of the services and the maintainability of the client's request till the completion of the services taken place. This phase strictly denotes the liability of the software services and the adaptability of the software services.

IV. IOT RELATED TO CSTS TECHNOLOGY

CSTS relates to the IOT technology, by using the application gateway called CSTS we are providing the services between the client and techie. This is a new model for the IOT technology, for instance we were using IOT technology for controlling the hardware by using the voice over system or biometrics to control the hardware devices mainly for the house hold appliances. [23] However we were observing many changes have been taking place predominantly by using IOT technology, such provide the more reliability, adaptability and more security to the user.

By using the IOT application technology we can provide the services between the techie and the client. CSTS is emerging technology for the user who are willing to get software base services. Using IOT technology, there is a rapid development in application based services like UBER. This UBER technology solves the passenger and drivers issue and it makes bringing the passenger and driver into a single platform. [24]

In addition to this, by implementing the IOT technology there are many passenger services have been taking place. Not only, the UBER technology but also the many technologies we have like OLA, Meru etc. These services provide more

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efficiently to use the IOT application which brings the client and the techie together and makes more reliable to use. [25]

By using the CSTS technology we can also provide the services between the client and techie. This CSTS technology makes a new trend while dealing with the software issues. Using IOT this CSTS technology shows how to use IOT technology in more efficient manner in order to provide the communication channel between the two platforms and bring together in a single platform using CSTS application gateway.

V. CONCLUSION

The CSTS shows a new model in the IOT technology. Today's world software application is the platform to provide customer oriented services. [7] Using IOT technology we have already observed that many software application devices have been initiated. Using this CSTS technology solves the software issues which have taken place in the business environment. This CSTS makes a new model in the IOT technology. [8]

Moreover, the major flaws unable to meet user requirements or deadlines in the software industry or any company are working on software product. [9] So, there is not any appropriate person to resolve the software issues in the delivery of the product or in the maintenance stage of the software product. On the other side, there are technical people in the software industry are facing the recession or the technical people who are skilled enough and they are facing the uncertainty that, on an average they are not getting the software projects. [10]

Which results a huge layoff have been taking place and some people are kept in the bench and some are other techies are searching for their better prospects. [12] Research says that, according to the quartz India in 2017 about 56,000 layoffs had taken place throughout India. Especially major IT firms in India like Infosys, cognizant, Tech Mahindra, Hewlett Packard etc. Though the people are skilled enough the recession is taking place. [15]

It may be in various scenarios like downfall in the global market or recruiting the staff more than the requirement or lower number of the meticulous staff. Like we may consider many ways for downfall of software carrier of the technical people. IOT technology adapts the CSTS model to solve the technical issues. Moreover, this CSTS gateway application is also more useful to the technical people, that the CSTS acts as their source of income and they also strengthen their skills. This CSTS technology is also more useful to the students especially the undergraduate or graduate students who have technical skills and they are not finding any internships. They also can connect this CSTS device and by using this CSTS technology students can earn money or they can work for freelancers to promote software services to the clients. The main feature by this CSTS technology are portability, scalability, robustness, interoperability of the application usage. [13] Using the CSTs technology is the only solution to find the technical related people to solve the client related technical issues.

VI. FUTURE WORKS

In this journal a new model CSTS has been introduced to solve client related software issues with more portability. Using the CSTS application gateway, which brings the client and techie into a single platform. My further research on this technology is, firstly a case study about layoffs in the software industry in India and rest of the world. Survey about the usage of the software application by using the IOT technology and what are the challenges made by introducing CSTS technology. Next, the parameters of the CSTS and the maintainability of the CSTS technology. Further enhancement of CSTS technology, and next research also include the additional functional and the other services are provided by using this CSTS technology.

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