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Cloud Based City App Using Video Streaming

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Abstract **- Today is the world of mobile. In these days power of mobile phones are increases rapidly. We are developing android application in which we uses concept of "cloud computing". Cloud computing uses its set of rich resources. We are developing cloud based mobile social TV system. PAAS (platform to service) and IASS (infrastructure as service) are cloud services which are used by the system effectively [1]. This will gives a beautiful experience of watching video in room to the mobile users. The android application will provide live video streaming which having good quality. Video streaming is great challenge, it mostly not present in other applications. We are developing such android application in which it will provide all information about city which is required to users. If you do not have time, you are so busy then in this case you can save this information and read it when you get time. This application will provide live video streaming, cannot use concept of "Buffering".**

Keywords-GCM service, cloud computing, Android Application.

I. INTRODUCTION

In these days' people do no use simple mobiles. So many people's are use Smartphone's because of cost of mobiles are somewhat is decreased and people easily get all advantage which is provide by the smart phones. These phones become so popular in now days. Smartphone having multiple microprocessor core and gigabyte ram. It also has high computation power than personal computers. In these days use of android phones are increased so we are developing android base application. In this app we are use the cloud computing. We are utilizing different software and hardware efficiently in application. This is become challenge for us how effectively we use cloud services to achieve different facilities from this mobile apps. For making the perfect use of cloud computing there is essential to do some study of it. We also use eclipse and my php database for this application.

In this project mobile user get all the information about city what he required. This project will provide all information about government and private jobs. This also provides the news which is available in two languages in Marathi and Hindi. Some time we are so busy we don't get time to read to it so we providing facility to save this information and it can be read when we get time. We use concept of video streaming in our project. We can watch any news video live with the help of this application. This app provide time table of bus, trains, movies available in different theaters. This app gives all info about industries, emergency services, properties, education.

We are developing this application for peoples who are new in city and who do not know about cities. So this app will immediately provide required information to user. All services are provided by single application to user generally this facility does not provide by any other application. This app will provide movies on demand. In our

app we describe about designing of mobile social TV. Cloud mov can be easily use concept of cloud computing in this application due that we are watching any video with our friends and enjoying our life. Few people use traditional TV, most of the people use mobile social TV which is suitable for today's life style. The android application will provide live video streaming which having good quality. Video streaming means performing two tasks that are when their loading packets at the same time it will display. That means there is no buffering are used. Video streaming is challenge, genrally not present in other applications. We also use notification system for the user when he is out of city. Alert systems are also use in our application.

II. EXISTING SYSTEM

Generally not so many features are provided in single application. Concept of live news streaming is not used in many application. In existing system not giving notification to user that means there is not use the notification system in application. There is no option of user side updates and also can't provide the alert system. Video streaming is also a challenge which not provided. Mobile user does not get so many advantages from mobile because of unavailability of above things.

III. PROPOSED SYSTEM

All features are in single application, the updated information on city and its picnic spots with route maps is available, live video streaming, various alerts such as News, jobs and high alert, and various travel and transport information. News update options for users are available. According to market survey only 85% of the people knew about the mobile applications and about nearly 76% people uses the mobile application and 3% in the market other mobile application like our city app is available.

IV. MATHMATICAL MODULE

Mathematical module contains Device Server Communication and Server GCM Communication which are explain below:

Device - Server Communication:

R = {R1, R2, R3, R4, ----------Rn}
RE = {RE1, RE2, RE3, RE4, ----------REn}
Where R = Set of request
RE = Set of response
For every set of R these need to appropriate response.

Server - GCM Communication:

U = Set of users
G = Set of device registered with GCM
M = Set of messages
For every user if GCM is activate on device send message
Where G is subset of U
M is subset of D

V. ARCHITECTURE

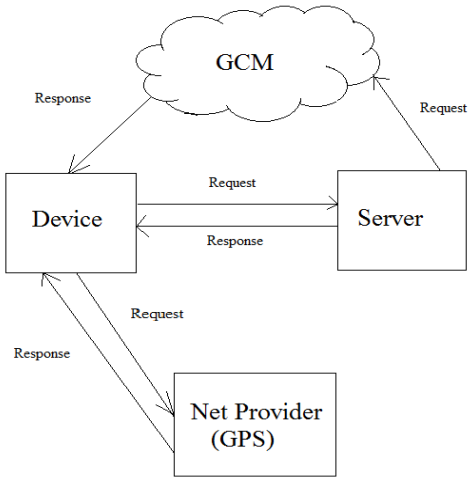

Fig. 1. The Architecture of application

Fig (1) shows the architecture of the system. Device, server and net provider (GPS) commuicats with each other by sending request and receiving response from each other. Device sends request to the server and server gives response to device. The

device sends request to the net provider i.e. GPS and in return it gives response to the device. The GCM (Google cloud messaging) communicates with the device and sever [6]. The sever sends request to the GCM and the GCM send response to the device.

VI. KEYMODULES

1. Bus:

In that module, we provide bus timetable mean user want to go anywhere in city then users use this module to know time for buses where users want to go. User enter source and destination then app provide bus list which are halt at that stop along with their timing.
we give the facility to trace nearby bus stop of a user and display list wise. User stand anywhere in street and they don't have an idea about where is bus stop then we trace user position with help of GPS or network provider and give the information about its nearest bus stop.
This app gives schedule for city bus , Aciyad bus also for shivery buses only for our city.

2. Railway:

In this module we provide time table for incoming trains as well as for outgoing train from Nashik road railway station. We can check also PRN status. If any emergency is their like mega block or worker strike then we can give message to user about that event.

3. Hotels:

This application will provide all detail information about hotels, restaurants are available in city. App provides details such as contact number of hotels and how to go there from main point of city.

4. Education:

As know that different universities, colleges and schools present in our city. This App provide information about schools, institution and universities such as history of an particular school, current status, review and mobile numbers, address etc. Due to this app we easily get all information about different schools, colleges and also of university

5. Picnic spot:

We give information about picnic spot present in city to user. There are different picnic spot in city and users easily get all information about picnic spot for example castle, dam, waterfall, holy places. User gets detail from this module about where is the picnic spots and what is their with route map.

6. News:

News is one of the important module of this android application in which we get news in two languages i.e. Marathi and Hindi. We can read headlines of news along with detailed information about news. This news are local news, sport news, International news. If users are busy and he don't have time to read news then we can save it and read it when we get time.

7. Entertainment:

This module is related with the entertainment of user **.**User watch any movies and songs according to his demand, but for this user have to pay some charges**.** We provide timetable for different shows available in different theaters in city. This app gives schedule of nataks which are available in different languages.

8. Jobs:

In this module we get all the information about government and private jobs available in city or out of city. App provide link for each job. When we clicking on link of particular job we get details about it. We also use notification system for giving notification to user about jobs.

9. Properties:

In this module we get information about available land, home, flats and farm or any other property which have to sold or given on rent. Their provide contact number for contacting purpose. So

due to this application user easily get properties on rent or purchase to it.

10. Emergency:

In this module we provide emergency contact which is use in daily routine as per need such as ambulance, Fire Bridge, police, hospitals, Blood banks. We also directly done emergency call with the help of this application.

11. Setting:

In this module, here sharing feedback and rating is there to know what response to get our app. if response get more than our deadline then user subscribe for their application.

VII. Related work

There is need of android mobile in day to day life to meet our convinced for various purposes. As most of people make use of mobile and day by day the number for usage is increasing rapidly. At the same time it is also necessary to provide the mobile application that is useful to the entire client that means to all users. In our day to day life there is a need to get the information that is useful in our routine. To full fill the requirement, this application provides modules to satisfy the client requirement which is important and necessary too to save the valuable time. According to the market survey, there is no other application where all the modules are used in one application. This mobile application is different than the other application in the market; as in this application there is video streaming is available, notification, updates for alerts and news is provided, and other entertainment sources to meet the user's requirements. At present this mobile application is available for only one city but at wide level it will be available for various city according to need and demand to the respective city.

In this android application, we are having different modules such as bus, railway, hotels, educational, industries, picnic spot, news entertainment, jobs, properties, emergency, settings. All the above mentioned modules are different categories that belong to all age group according to their requirement or need. The youths mostly prefer the entertainment, educational, jobs and picnic sports modules in lager scale daily. The business person requires the information related to properties so this application is useful to find their requirements in less time. The traveling people get the information regarding the location that is picnic spots very easily with no wastage of time. By using this mobile application we meet our daily need that is useful for various fields. The most important thing that it saves much time when we use the other sources, in the addition android mobile are portable for usage. This android application requires the internet connection for getting the news, jobs updating and notification.

Interfaces for Loosely Coupled:

In Cloud Mov, the interfaces between different modules. The social cloud, mobile users, VM surrogates based on HTTP, it provide a platforms or universal standard for all internet connected devices [1]. The loosely coupling is provided between the infrastructure and the users, as long as it is installed with an HTTP browser almost any mobile device is ready to gain access to the Cloud mov services. The social cloud implemented on a Paas cloud service via HTTP get cooperated by the VM surrogates provisioned in the IaaS cloud as well, underlying technologies of each other and with no knowledge of the inner components, which contributes significantly to the easy maintenance of the system and the portability.

Cloud mov employs asynchronous communication provides social message exchanges among friends. The large size information in a bistable like data store which efficiently organizes all the exchanged messages are routed via the surrogates to the social cloud. Processes the retrieved data into XML files and the VM surrogates query the social cloud frequently, in an asynchronous fashion for later retrieval by users. The extra delay introduced at the VM surrogates is ignorable while such a design effectively separates

the social cloud to significantly simplify the architecture from the mobile users.

Video Processing used in Pipelined:

Cloudmov supports both on-demand streaming of stored contents and streaming of realtime contents. To work on fly, video processing in each surrogate is designed that is from the video source, the transcoder conducts realtime encoding for segmentation and transmission the encoded video is fed immediately into the reshaper, and a mobile user can start viewing the video as soon as the first segment is received. The transcoder launches multiple threads to transcode the video into multiple bit rates once the connection speed between the mobile user and the surrogate changes, to support dynamic bit rate switch. An ideal platform for implementing such computation intensive jobs represents the Iaas cloud where the surrogates are deployed.

VIII. RESULT ANALYSIS

Fig. 2 shows result of our application. This is screenshort of our city app**.**

Fig. 2. Our city app

IX.CONCLUSION

We conclude that this application is very useful to all age group of persons for news, jobs, events & city information also for person who don't know about city.

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