Modernized Agricultural Information via SMS-A Cloud Computing Perspective

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ABSTRACT

India is the third substantial frugality in Asia after Japan and China; it is proceeding to grow rapidly. About 75% people are source of revenue in pastoral areas and are still reliant on Agriculture. About 43% of India's ecological area is used for farming activity. So as a whole in India there is a bunch of input from the farming Sector. These papers converse everything about on condition that the SMS modernize on various agriculture harvest as per the user rations on his GSM and/or GPRS mobile phone. The modernize may fluctuate from price, accessibility store, and Need of different goods on the Market. Essentially this will be probable to be cooperative for Farmers around the state. Also since it plant anywhere there's a mobile signal, it does not have need of Internet. In this paper we take a quick look over the discrepancy of cloud computing named Data-as-a-Service (DaaS), since we are on condition that price Details to patron against the Database Queries. And also the Deployment Model we reflect on is Community Cloud. It primarily anxiousabout a precise group of patrons who is in our crate The Farmers.

KEYWORDS: Agricultural, DaaS (Data-as-a-service), Cloud, SMS, Database, Farmers.

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I. INTRODUCTION

Farming has constantly been India's the majority essential profitable sector. India is one of the greatest growing financial systems of the world and is currently the spotlight of a great compact of international consideration. In the mean-1990s, it offer in the region of one-third of the GDP (gross domestic product) and occupy approximately two-thirds of the population. It is the seventh major country in the world in conditions of its geographical size.

Farming still affords the mass of wage goods required by the non farming region as well as various raw materials for industry.

The meandering share of agricultural harvest in entire exports, such as jute goods are taken into report, the percentage is much elevated. With existing inhabitants growth by 2025 India may even have immovable up with China according to the UN.

Mainly focusing on agriculture and in particular on agriculture trade. India has a huge and diverse farming and is one of the world's top producers. It is also a foremost consumer, with an escalating inhabitant to feed. For this motive and agricultural deal policy, its existence on the world market has been reticent.

The primary forecasting institutions anticipate that India will play a better role in world markets in future. India's agriculture supply to 24% of GDP, offer food to 1.2 Billion people, protract 65% of the population and it helps lighten poverty, Produces 51 major Crops, afford Raw Material to Industries and also supply to 1/6th of the export wages.

Also we include one of the 12 Bio-diversity centres in the world, with over 46,000 varieties of plants and 86,000 kind of animal. In a number of markets it is projected to toughen its position among the world's importers (vegetable oils) and exporters (rice).

The size of Indian farming, changes in its stability sheets for key produce have a potentially huge collision on world markets. Agriculture plays a significant, though declining role in the financial system. It split in all-purpose GDP fell from 30% in the untimely nineties, to below 17.5% in Agriculture will defend to play a central role as Asia pursues the balancing goals of scarcity reduce, sustainable food security, ecological protection, and rising trade competitiveness. According to the review new knowledge, include crop biotechnology, will be necessary to get together these confront. The prediction for their exploitation is chiefly capable.

This is predictable to be very much helpful in the countries like India. Present is a lot of work available on this field. Some illustration like Golden Rice, BT Brinjal, and BT Cotton etc. can be considered. Now a day's a variety of association, research Institutes, Universities & administration bodies are working on this.

II. KEY AGRICULTURE SECTORS

India is amid the world's important producers of paddy rice, wheat, buffalo milk, cow milk and sugar cane. It is also the world organizer or the subsequent largest manufacturer in eight out of its top ten products. Some of these are extensively traded while others are further professional products. Table I shows the work of production by value for 2010, when paddy rice was the crest sector, followed by buffalo milk and wheat [1-3]. India is now the major milk producer in the world and the succeeding largest producer of paddy rice, sugar cane, wheat, cow milk, groundnuts and certain fresh vegetables. But it is also a most important consumer. Although it exports these goods the amount will vary depending on the size of the crop and demand. India is the leading producer in the world of fresh fruit, anise, fennel, coriander, tropical fresh fruit, jute, pigeon peas, pulses, spices, millets, castor oil seed, sesame seeds, safflower seeds, lemons, limes, cow's milk, dry chillies and peppers, chick peas, cashew nuts, okra, ginger, turmeric guavas, mangoes, goat milk and buffalo milk and meat and Coffee. It also has the world's main cattle population (281 million). It is the second major producer of cashews, cabbages, cotton seed and lint, fresh vegetables, garlic, eggplant, goat meat, silk, nutmeg. mace, cardamom, onions, wheat, rice, sugarcane, lentil, dry beans, groundnut, tea, green peas, cauliflowers, potatoes, pumpkins, squashes, gourds and inland fish.

TABLE I: MAJOR AGRICULTURE AREAS OF INDIA (FAOSTAT, WORLD RANK CALCULATED BY DG AGRI, 2008)

Commodity	Rank India	Rank World	Product (MT)
Sugar cane	1	2	348188000
Rice, paddy	2	2	148770000
Wheat	3	2	78570200
Buffalo milk	4	1	60900000
Cow milk	5	2	44100000
Potatoes	6	2	34658000
Vegetables	7	2	31402000
Bananas	8	1	26217000
Maize	9	6	19730000
Mangoes, Guavas	10	1	13649400
Onions	11	2	13565000
Millet	12	1	11370000
Coconuts	13	3	10894000
Tomatoes	14	4	10303000
Soybeans	15	5	9910000

III. OBJECTIVES

The main objective is, which are intended after the revise of the farming challenge at hand in India particularly in Karnataka state. The subject preferred to solve here is implementation of modern farming practice and use of knowledge. Our Project Objectives are:

1. Scrutiny of behaviour and assessment of reason since agriculture sites, and preparation strategies to gather and distribute them.

2. Design and growth of software tools for selected machines, their testing and consistency and popularization in pastoral areas.

3. Compilation of anthropometric data on undeveloped workers for plan of stable well-organized organism and work spaces.

4. Studies on man-machine-atmosphere interaction and border under different work circumstances for improvement in the aim of agricultural and related equipment

5. Afford accessible interface for both Farmers and organization of concern.

6. Updates on advertise status of a choice of products as per the user choice on day by day or rag basis

7. Design and preservation of a Backend Database of all the harvest whose organize is given for the seller.

We are mainly apprehensive about Customer necessities, Internal Database Design, client Interface plan, invention Related concern, Customer hold up & communication necessary features are only measured among the above point out Objectives, because all may not be pertinent or may be formerly implemented. The functioning model is built by integrate the 3 entity component which are residential in corresponding.

IV. CHALLENGES

It is obvious that India's agricultural sector has made enormous step in rising its potential. The Green Revolution (1968) & Ever-Green Revolution (1996) enormously inflamed the construction of vital food grains and introduced

Technical enhancement into agriculture. Some of the complexity faced are:

1) Overregulation of farming has distended costs, consequences risks and ambiguity.

2) Management interfere in labor, land, and recognition markets. India has too short road and rail network and services.

3) The irrigation transportation is declining and it's almost insufficient in environment.

4) The do to overload of water is presently being honored by over propel aquifers, but as these are waning by foot of groundwater each year, this is a partial resource.

5) Illiteracy, all-purpose socio-economic backwardness, measured progress in execute land reforms and insufficient or ineffective finance and marketing services for farm produce.

6) The typical size of land assets is very small (less than 20,000 m²) and is focused to disintegration, due to land maximum acts

7) Contradictory government policy. Agricultural funding and taxes often changed without notice for short term political ends.

V. SCRUTINY AND ASSESSMENT OF PRACTICAL EXECUTION OF THE SYSTEM

What Are the Requirements to Be Considered?

The majority of the requirements are obtained from the Agriculture development Marketing Centre for Agro marketing in South Kanara Dist. According to the study conducted by team in the Belthangadi and nearby agriculture areas, the results were summarised as below:

TABLE II: PERCEPTION ABOUT QUALITY OF CURRENT SERVICES

Questions Asked	Good%	Average %	Poor%
Methods of customer support	14	54	32
Interaction of officers	26	57	17
Use of supportive tools	12	59	29
Timely completion of the schemes	20	56	24
Availability of warehouses	56	39	
Satisfaction with the Restroom & related facilities	31	62	
Availability of Computer & Internet	37	52	
Medical & Remedial facilities	63	28	
Examination & Quality clearance	14	81	
Marketing & Pricing support	40	47	

Along with this, a investigation is also taken concerning the new services which we are planning to present to the Farmers. Since it's a new organization to the cultivation area, this study from the farmers is very required. Most potential implementations are only covered during the survey[2], leaving the slight modifications.

So, that there are no potential complications. The problems are framed relative to the new implementations of our project and the response is noted down.

The main apprehension is to help the Farmer to get better his Economical Status by removing the need of Brokers and also providing info about multiplicity of Products, which makes ours an exclusive Facility.

TABLE III: PERCEPTION ABOUT NEW SERVICES TO BE PROPOSED

Questions Asked	Good%	Average %	Poor%
Automated updates	90	9	1
Very less or Free of Cost service	75	22	3
Customer care support	72	24	4
Timely delivery of Info and Prices	68	25	4
Natural language support(Kannada)	85	12	3
Various modifiable schemes	45	51	4
Technical support & guidance	70	22	8
Providing additional devices	54	37	9

The system is developed with 3 important modules in mind namely:

1) A Simple User Interface with SMS
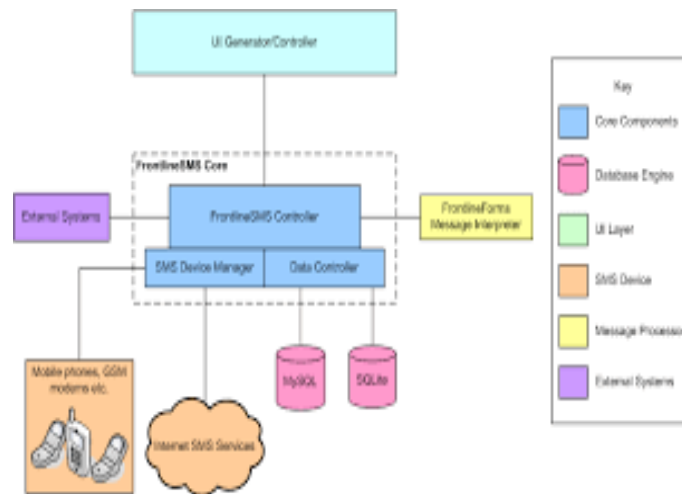
2) Linking between User & Database

3) A Database System

Figure1: Pictorial Representation of the Product

Why Cloud Computing?

We have chosen this technology, because it is all set to serve the small and medium business segment, which is our area of concern. As a opportunity scope of this project, we can apply our

system for the Large Scale also Cloud Computing Approach. The reason is that it is simple for mounting our project model for any other situations & vendors also. Cloud computing patrons do not generally own the physical transportation serving as host to the software platform in question [6]. The entire focal point lies on the service supplier who owns the huge scalable and changeable host of infrastructure, software and collection of other services. Cloud computing is Network-based computing, whereby common resources, software and in sequence are provided to computers and other devices on-demand, like a public utility. Cloud computing enables users and developers to exploit services without knowledge of, expertise with, nor control over the technology infrastructure that supports them. The concept generally incorporates combinations of the following:

1) Deployment Model
2) Service Type

In our organization we used the Deployment Model as the Community Cloud. A community cloud may be recognized where several people have parallel requirements and seek to share infrastructure, so as to understand some of the benefits of cloud computing. Usually in this the costs are stretch over fewer users than a public cloud. But more than a solo user and it offers a higher level of privacy and security. The Service Type is DaaS (Data-as-a-service), in which we give various database updates to the customer in the form of SMS [8]. The customer queries alongside the providers database.

VI. CONCLUSION

Presently in Tamil Nadu the development is first of its kind using the Frontline SMS as policy. So, the answer from the agriculture ground may receive time. Also based on the cost helpfulness of project it can be executed in various other country areas and other parts, if necessary. The updates can also be given via Email which previously tested. Not all the representation of mobile phone chains the updates via Frontline SMS platform, which need attractive Frontline SMS core [8].

Frontline SMS is Open Source software to facilitate enterprise use of mobile expenditure by businesses and organizations allocation the base of the pyramid. The examination will be product & market-specific. Which means the farmer can desire accordingly. Also, the farmer will not be encumbered with irrelevant information. And the update SMS will be reserved as small as possible, to avoid the immaterial costs. A farmer can decide the market, as also choose on whether he should hold on his product.

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