

VOICE ENABLED INFORMATION DELIVERY SERVICES TO BRIDGE KNOWLEDGE DIVIDE OF RURAL FARMING COMMUNITIES IN INDIA

A Case Study on **LIFELINES INDIA**

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Executive Summary

OneWorld is partnering with BT and Cisco to establish Lifelines India, a telephone-based information delivery service that provides guidance on improved farming methods and advice on market access to improve the lives of rural farming communities. Answers to many of these problems may well be on the internet – but with connectivity, literacy and language barrier, this is way beyond the reach of the vast majority. So a simple telephone – community fixed phone or mobile – serves as the medium of information exchange, while sophisticated communication technology and computing applications have been configured at the back-end platform to provision of requisite information service. The solution comprises of a unified messaging platform incorporating Interactive Voice Response (IVR) functionality, integrated with a Customer Relationship Management application to support integrated call handling and management of very large audio database.

At present the service is available to 40,000 farmers in 700 villages and more than 250 calls to the service are being received and responded each day. Lifelines also facilitated creation of a audio database of over 30,000 FAQs and the number is rapidly growing. There are discernible evidences of improved farm output, and some farmers have reported an increase in profits between 25 and 150 per cent.

Problem Definition

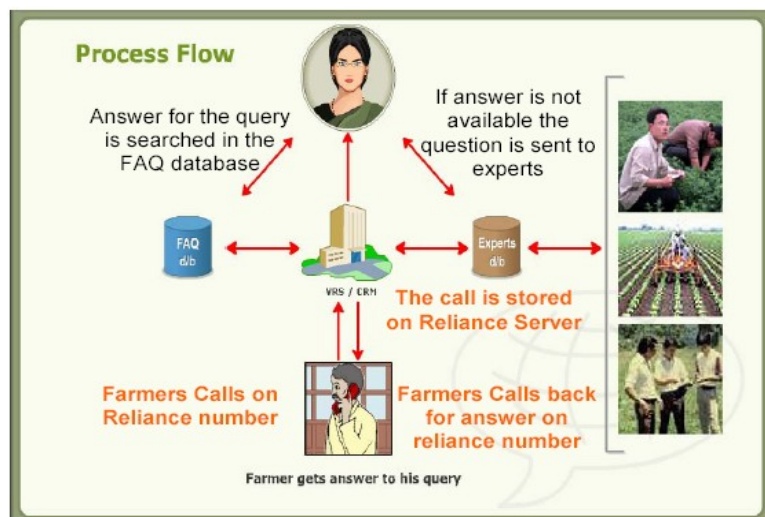
Around 65 per cent of India's working population are farmers, who work under difficult environment and challenges. Crop failure or animal illness can be catastrophic for the farmer and on many instances these can be mitigated with timely access to relevant information. Informed answers to many specific problems may well be on the Internet, but by far majority of farmers do not have access to this medium. In addition to connectivity constraints, many people cannot read; language can also be a barrier as information is often available only in English. Information on voice mode, delivered in local language (and dialect) is therefore the most powerful medium for knowledge diffusion for improved productivity and improving quality of lives in rural farming community.

The Solution Overview

To use Lifelines services farmers dial a designated no. (022-39116000). This could either be a community fixed-line phone in village; or a mobile phone provided by local Ek-Duniya Fellows (OneWorld sponsored field retainers to serve as *info-mediators*), who travel around the villages to help promote Lifelines services. In reality, these Ek-Duniya Fellows play a critical bridging role in completing the information cycle for farmers on the ground.

The farmer using the service is greeted with the welcome message of “*Soochna Se Samadhan*” (Information Is Solution) and is prompted to record her/his query on an automated voicemail system. Once the query is registered, the system generates an acknowledgement token (query-id).

The Lifelines knowledge worker picks up the recorded query message, and using the web-enabled customer service application, searches the voice database of frequently asked

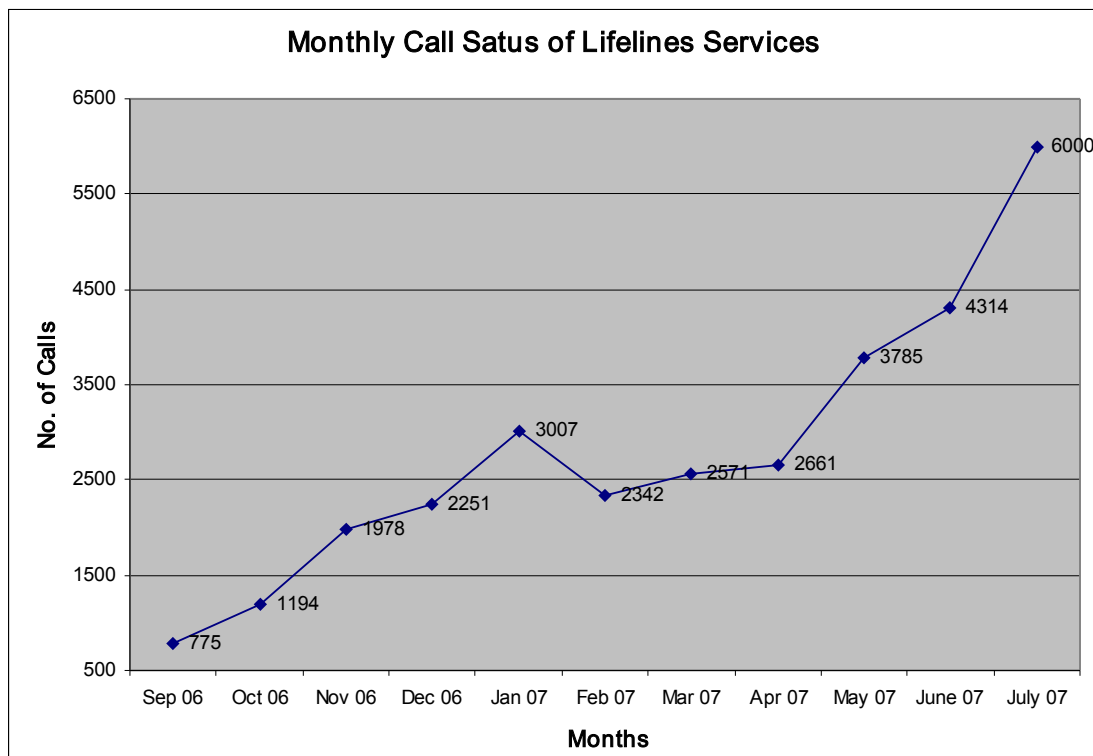


questions. If the issue is new, the knowledge worker leverages the unified messaging option to source response to this query from a panel of agriculture and animal husbandry experts from the domain/knowledge partner. The answer in voice mode is attached (tagged) to the specific question for the farmer to pickup after 24 hours. The entire cycle of query registration to information service provisioning is delivered on the integrated technology platform of intelligent voice response system, unified messaging, and web-enabled customer relationship management application.

The Lifelines services has also been enabled for web-based access; the farmer may visit the nearest knowledge centre / information kiosk to register query with digital images of diseased crops (for remote diagnosis), listen to audio clips of frequently asked questions, and also access the entire voice database on-line.

Present Status and Impact

The Lifelines India service was launched in October 2006 and at present the service covers 700 villages spread across 10 districts in three states of India – Himachal Pradesh, Madhya Pradesh and Uttar Pradesh. As on date, the Lifelines-India service is being accessed by around 40,000 farmers of these existing 700 villages; during the month of July 2007, an average 250 calls per day have been received and answered. At present, the Lifelines database has over 30,000 live FAQs; and this number is growing rapidly every week.



Farmers pay a nominal fee of Rs. 5/- (approximately 9 Euro Cent) for recording a query and getting the answer; revenue from the call charges are being used to offset part of the operating cost of the service. On economy-of-scale, this would be the key element of achieving operational sustainability of Lifelines services.

In last eight months of implementation, Lifelines service has been successful in delivering desired benefits to the farmers as originally envisaged in the project objectives. A longitudinal survey conducted among farmers across districts wherein the project is currently being implemented, indicated positive trend in satisfaction level. An impressive 69% of farmers had reported a higher level of satisfaction in vis-à-vis 47% satisfied farmers in November 2006.

Farmers have accepted the Lifelines service as a valuable tool for information exchange, and there are definitive evidences of the service contributing to improved crop efficiency, and as a corollary, to their earning opportunities. A sample study across villages in three districts reveals a consistent increase in profit and productivity for the farmers interviewed, along with more informed pricing decisions. For instance, in village Mashobra of Himachal Pradesh, the increase in profits for farmers availing of the Lifelines services have ranged from 25% to 40%, supported by increased outputs and prices (also indicative of improved quality and better market information), across crops as cabbage, apple and tomato; in Jhansi farmers have reported improved productivity, with the percentage jump ranging from 25% to even 100%; some of the farmers from village Nalagarh have even recorded increased profits to the tune of 100-150%.

Plans are already in place to extend the service to cover 1,000 villages, and a population of five million people by March 2008 and on to 3,000 villages and a population of 15 million people by March 2010. Forecasts suggest that at that time the service will be handling over 800,000 calls each year. Plans are also in hand to help

raise caller satisfaction with the service to 95 per cent and beyond within the next few months.

The success in agriculture sector has provided an opportunity for Lifelines to explore the potential of service extension to support in other development domains and potentially other geographic regions of the world. The concept of *'LifeLines for Education'* is already being explored with additional funding support from USAID. The idea is to provide on-going academic support to teachers and students in rural areas – enabling access to subject-matter and pedagogy experts and curriculum issues as aid to learning. This experimental initiative is now being rolled out for teachers of 650 remote rural schools of West Bengal.