

Communications technology bridges the digital divide in India

“BT and Cisco have supported the whole programme and helped turn our vision into a reality. In addition to providing funding and technology, the companies demonstrated a high degree of business proficiency, providing managerial leadership, guidance and insight to ensure the effective launch and promotion of the service.”

Naimur Rahman
Director
OneWorld South Asia

BT is partnering with Cisco to help OneWorld establish LifeLines India, a telephone-based information helpline providing advice and guidance to improve the lives of rural farming communities

Executive Summary

India's rural farmers work in a very difficult environment and are faced with daily challenges. Crop failure or animal illness can be catastrophic for the farmer and help is not always readily available, mainly due to the very limited communications facilities in rural areas. The answers to many of the problems may well be on the internet, but this is way beyond the reach of the vast majority.

BT approached OneWorld – a charitable organisation working to promote human rights and sustainable development across the globe – to explore ideas for a telephone-based information service to enable farmers to record a question and, soon after, retrieve a recorded reply. BT engaged with Cisco to co-sponsor the initiative. LifeLines India was launched in November 2006. The solution comprises a Cisco Unified Messaging platform incorporating Interactive Voice Response functionality, integrated with

a Customer Relationship Management application and information database provided by BT. Cisco and BT also jointly sponsor OneWorld who manage and operate the service.

Coverage currently extends to 700 villages and an average of 350 calls to the service are being received each day. A database of over 88,000 'frequently asked questions' has been created. Not only is this vital to help deliver a prompt service to farmers, it is key to enabling service scalability and sustainability. As a result overall caller satisfaction with the service is very high at 96 per cent. Crop quality and efficiency has already improved and some farmers have seen profits increase by between 25 and 150 per cent. Plans are now being developed to extend the service coverage to a total of 3,000 villages by 2010 and explore the opportunity to use the platform for other applications such as *'LifeLines for Education'*.



Case study

LifeLines India

“LifeLines India is BT’s first international digital inclusion programme and we are delighted with the result. The social and economic benefits for India’s rural farming community are very evident and we have helped create a sustainable business model that can be applied to other similar projects both in India and beyond.”

Janet Blake
Head of Global Corporate Social Responsibility
BT

Challenge

With over 1.1 billion people, India is the world’s second most populous country, yet only the seventh largest country by geographic area. Although the standard of living in India is projected to rise sharply in the next half-century, it currently battles high levels of poverty, illiteracy, malnutrition, and environmental degradation.

Around 65 per cent of India’s working population are farmers. Their working environment can be extremely harsh and the daily challenges significant. Some areas, like Bundelkhand in Central India, suffer from a lack of rainfall and low soil fertility. Irrigation facilities are generally inadequate, and diseases and pests are a constant problem in most places. Crop failure or animal illness can be catastrophic for the farmer and help is not always readily available, mainly due to the very limited communications facilities in rural areas.

Informed answers to many specific questions may well be on the internet, but this is way beyond the reach of the vast majority of India’s rural farmers. Naimur Rahman, Director of OneWorld South Asia comments: “The rural farming community in India suffers from poor levels of literacy. Many people cannot read and language can also be a barrier to learning as information is often only available in English. Voice is therefore the most powerful medium to leverage information service delivery. We wanted to help the rural farming community by linking voice to web technology, giving ordinary people the chance to get answers by phone to the questions that are key to improving their lives.”

BT approached OneWorld initially to explore ideas for a project to help developing-world communities to bridge the digital divide. BT takes its corporate social responsibility very seriously and has led the Dow Jones sustainability index in the telecoms sector in each of the past seven years. BT immediately saw the potential and engaged with Cisco to

co-sponsor the initiative. Janet Blake, Head of Global Corporate Social Responsibility at BT says: “BT has long been committed to work with disadvantaged groups within the communities in which it operates. BT and Cisco have a very complementary skill set and LifeLines India offered us a great opportunity to combine our expertise to make a real difference to people’s lives in the developing world.”

Adrian Godfrey, Director Corporate Affairs at Cisco adds: “Cisco strives to be a good citizen worldwide and our culture drives us to set high standards. BT and Cisco have been great business partners for many years and both companies are active in India. This seemed a perfect opportunity for us to support digital inclusion and use both our intellectual property and our technology solutions to make a sustainable difference.”

Solution

OneWorld had the idea to add a telephone dimension to its established Open Knowledge Network – an initiative that uses knowledge workers to share learning in the local language – but it needed help to turn its vision into a fully operational and sustainable service. LifeLines India was launched by the partnership in November 2006.

Initially the LifeLines India service covered 85 villages, principally in the region of Bundelkhand to the south-east of Delhi. It is designed to provide the farming communities with access to expert advice on agriculture and animal husbandry problems. All the farmers need to do is dial the LifeLines India number from a community telephone. This could be a village phone shop (kiosk), or a mobile phone provided by local OneWorld sponsored associates (Ek Dunya fellows) who travel around the villages to help promote OneWorld services. Callers are greeted with the service name; “*Soochna Se Samadhan*” (Information Is Solution) and prompted to record their query on an automated voicemail system.

Case study

LifeLines India

The farmer is given a reference number (query-id) by the system and told when to call back for an answer. The query is processed by a OneWorld sponsored knowledge worker in a central office who first searches the voice database of frequently asked questions. If a solution is on the database the knowledge worker attaches the voice response for the farmer to access as soon as the following day. If the issue is new, before recording the reply the knowledge worker seeks advice from a specialist from the Indian Society of Agribusiness Professionals (ISAP), a OneWorld partner organisation for LifeLines. TARAhaat, another non-governmental organisation focused on sustainable rural development, is also partnering with OneWorld in the programme roll-out.

The two calls – one to record the query and the second to retrieve the answer – cost the farmer just five Rupees, around six pence. Geeta Malhotra, Head of Grassroots Communications, at OneWorld South Asia observes: “This small charge serves a dual purpose. Firstly, the farmers value and respect the information they get because it is not totally free. Secondly, it enables us to create a sustainable business model.”

Naimur Rahman explains further: “BT and Cisco have supported the whole programme and helped turn our vision into a reality. In addition to providing funding and technology, the companies demonstrated a high degree of business proficiency, providing managerial leadership, guidance and insight to ensure the effective launch and promotion of the service.”

Calls to Lifelines India are directed to and answered by a Cisco Unified Messaging Platform incorporating Interactive Voice Response functionality. This is integrated with a Customer Relationship Management application and information database provided by BT. The Cisco messaging platform was implemented in collaboration with Cisco’s partner Wipro, while the bespoke database development and systems integration was delivered by TechMahindra – a software services and solutions joint venture company in which BT has a 38 per cent equity.



Janet Blake comments: “BT has provided more than just funding and technology. For example two BT managers spent time assigned to the project, helping with development of the business case for the service and providing marketing expertise. This included helping develop the marketing campaign, the LifeLines brand and logo, and producing collateral – with posters advertising the service designed by children from the Katha School in Delhi that BT also sponsors.”

Results

This collaboration between BT, Cisco and OneWorld, is in support of the UN Millennium Development Goal on digital inclusion. Until recently the only source of agricultural and veterinary information available to farmers in rural India was through community meetings and agriculture extension workers. Now, LifeLines India responds to that need, providing small scale rural Indian farmers with a means of bridging the information gap that prevents them from farming in a sustainable manner, integrating with global markets, and ultimately, supporting their families.

Such has been the success of LifeLines India that soon after launch the service quickly expanded. Just one year on coverage had extended to 700 villages in four states of Northern India – Uttar Pradesh, Madhya Pradesh, Haryana, and Himachal Pradesh

– covering a working population of more than three million people, of which around two million are farmers. Call volume had risen from 1,100 per month at launch to an average of 350 calls daily, far beyond the business plan prediction of 150 calls per day by March 2008. Despite the rapid growth in call volume customer service remains very good, not least due to the advanced technology from Cisco and BT that underpins the service.

A database of over 88,000 ‘frequently asked questions’ has been built, enabling knowledge workers to provide a very timely response to repeat queries. In fact, over 98 per cent of queries are being answered within 24 hours. This speed of response is essential if the service is to achieve its objective of becoming truly self-sustaining.

Farmers have embraced the service as a valuable tool for information exchange and this has directly benefited crop efficiency and earning potential. The results have been astonishing. An early sample study of farmers across three villages – Masobra, Jhansi and Nalagarh – revealed a consistent increase in product quality and productivity leading to an increase in profit for the farmer ranging from 25 per cent to 150 per cent. In a later survey of 5,000 farmers who had used the service, 96 per cent said that they were satisfied and 70 per cent reported that the advice given had both been implemented and had delivered farming improvements.

Case study

LifeLines India

The Future

LifeLines India has proven the value of digital inclusion, educating the rural users to use technology to access advice and learning to improve the future for their families and the local community. Naimur Rahman says: “The social return of such an improvement is immense. A better harvest can mean increased income, which will mean a better quality of life for families, enabling children to be better educated and so have a brighter future. This is good for the individual and good for India.”

A steering group, chaired by BT and with representation from Cisco and OneWorld, meets on a quarterly basis to review progress and direct the project. Plans are already in place to extend the service to cover 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, at which point the partners anticipate that the service will become self funding.

The success of the LifeLines India digital inclusion programme has been widely acknowledged. For example, BT, Cisco, and OneWorld South Asia were recently awarded a coveted ‘big tick’ from Business in the Community (BiTC). BiTC’s Awards for Excellence is the UK’s leading recognition scheme for responsible business, honouring companies that are having a positive impact on society. LifeLines India was recognised in the Power in Partnership category, which is part of the Community Impact section of the awards.



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Janet Blake concludes: “LifeLines India is BT’s first international digital inclusion programme and we are delighted with the result. The social and economic benefits for India’s rural farming community are very evident and we have helped create a sustainable business model that can be applied to other similar projects both in India and beyond.”

In fact, through the steering group, BT and Cisco have asked OneWorld to explore the potential for service extension to support other applications and potentially other geographic regions of the world.

As a result a new concept called ‘LifeLines for Education’ was launched in January 2008, focused on the Moteswar Block of the Bardawan district of West Bengal. LifeLines for Education uses the same technology platform to provide a helpline for both teachers and students. Currently covering 571 schools with around 2,000 teachers the service enables callers to seek academic support and ask for clarification about curriculum issues as an aid to learning. Plans are being developed to extend the service to cover some 10,000 schools in all rural areas of West Bengal as well as more than 15,000 schools in the states of Chhattisgarh, Karnataka and Rajasthan.

LifeLines India—Making a difference in rural farming communities

LifeLines India has already started to make a real difference to the lives of India’s rural farming community. Literally thousands of farmers and their families have already benefited from the advice given, and this is set to become millions as the service expands. Here is just a small selection of issues that LifeLines India has helped resolve, with comments from the actual farmers that have benefited.

Guru Singh Harihar, Terichar Village, Niwari, Bundelkhand

“My pulse crop was infected with disease and I was really worried.” Guru Singh Harihar heard about the LifeLines India service and went to his village phone kiosk to make the call and register his enquiry. The automated service advised him to call back to hear an answer after 72 hours. “I got advice on using a particular fertilizer in a specific quantity. I used the fertilizer as advised and within 15 days the disease was under control and my crop recovered.”

Satya Prakash, Terichar Village, Niwari, Bundelkhand

“My mustard crop was infected with the Mahu insect. I found out about LifeLines India and called the service to leave a query – it was really easy. The advice recommended a particular pesticide which I used and this brought the infection completely under control.”

Sushil Gupta, Sakrar Village, Jhansi

“My cow was ill and giving very watery milk. I called up on the helpline number and got some advice on nutrition and care for my cow. I followed the advice and my cow is fine now. The milk quality has also improved. This service is very good as the answers are given in a simple and easy to follow manner.”

Shiv Sharan Nayak, Niwari, Bundelkhand

“I have one hectare of land and I wanted to know about fisheries.” Shiv Sharan Nayak made a call to LifeLines India and was impressed with the quality of information received. “I even got advice about the best fish species. The language used is very simple and easy to understand. And if I need to hear the answer once more, I can listen to it again.”

Balwant Singh Jadav, Sakrar Village, Jhansi

“I have planted brinjal, tomatoes and okra but often these crops are attacked by diseases that are resistant to our normal treatments. With the LifeLines India phone service we now have a convenient way of getting help and this should help us move forward.”