

Background

Uptake of mobile phones in developing countries continues unabated. The African continent alone has witnessed growth rates in excess of 140% over the past twelve months. In many cases, mobile telephony has become people's only means of telecommunication.

At the same time, text messaging has allowed people to exchange information and communicate at both national and international level. The potential to provide some of the poorest people in the world with local, relevant, useful information has not gone un-noticed, and many NGOs are beginning to take a closer look.

Patients receive reminders to take their medicine, saving time and money travelling to local clinics. Farmers receive details of market prices and demand for their products before heading off to market. National parks communicate details of dangerous animals, providing an early warning system to mitigate against human/wildlife conflict. Young people living in the slums of Nairobi receive texts alerting them to job opportunities in the city.

Considerable amounts of money have already been spent by numerous NGOs investigating, designing, developing and implementing such systems. Since the use of SMS technology in the conservation and development fields is still relatively new thorough evaluation is only now beginning to take place, although results are rarely shared and hardly ever get out into the public domain.

Many organisations are independently developing their own systems, constantly re-inventing wheels and some making mistakes that others have already made. Many others are unable to even contemplate entering the SMS arena due to a lack of sufficient funds, a lack of in-house expertise, or difficulty in finding out where to go and how to start.

Introduction to the FrontlineSMS System

The design and development of the FrontlineSMS system is based on kiwanja's central focus of low cost, high impact interventions. Despite a huge increase in interest in SMS technology within the non-governmental organisation (NGO) sector, many find the technology out of reach due to a combination of lack of expertise, a lack of direction, and cost.

FrontlineSMS provides an affordable, standalone turn-key solution to NGOs, allowing them - many for the first time - to access 'group' SMS technology. And it provides the ability to carry out small- to medium-scale trials before embarking on possible larger project proposals. Although systems do exist, few if any have been designed with the NGO sector in mind.

At present, NGOs may need to deal with a combination of local SMS providers, local operators and local IT companies to get their projects up and running. In comparison, FrontlineSMS is a turnkey 'works out of the box' solution - the full system runs off a laptop or personal computer, a mobile phone or GSM modem, and a data cable. All the NGO need do is insert a local SIM card to enable the system to run on the local GSM network. FrontlineSMS will work in any country on any GSM network and is provided on a single CD or, where available, will be downloadable from the internet.

FrontlineSMS features

1. It is PC or laptop-based, meaning it is entirely portable and can be used wherever there is a GSM signal. Most systems are web-based and require an internet connection, often tying the user down to a fixed location and excluding NGOs working in areas where internet access is not easily or cheaply available
2. It will work with most GSM mobile phones (and GSM modems) and all GSM networks
3. Your data is all held locally, and not on a centralised on-line server
4. When running on a laptop the system continues to work during power outages!
5. Messages do not have to be purchased in bulk, and in advance, as with many web-based systems. Texts are paid for as they are used, as normal
6. No contracts to sign – fits in with any existing mobile texting and phone use patterns
7. Using SMS is usually cheaper than voice, and the system automatically keeps a permanent record of all communications - not as easy with random phone calls
8. The system will allow incoming text messages - not all web-based systems are able to do this simply and easily. Two-way communication is a vital function for full field communications or to carry out surveys
9. With this two-way portable communications capability, field-based NGOs can keep in touch with their fieldworkers from anywhere in the field. This provides valuable contact during 'sting' operations, or for monitoring movements of poachers, wildlife etc.
10. It works out of the box, simply plug-in and install, and requires little or no training
11. Multiple SIMS can be used when travelling, allowing the system to work anywhere in the world. Alternatively, if the SIM in use has roaming capability, the system will work abroad without any changes (although with possible increased network SMS costs)
12. It has been conceived, designed and written with NGO/charities/socially beneficial uses in mind, and a web-based network of users will be encouraged to communicate and support each other and provide suggestions for enhancements
13. The system can be used for internal staff-based communications, or to provide information to local communities via a sign-up process, or both
14. A custom database sits behind the mobile phone interface and automatically stores incoming and outgoing messages. The database keeps track of phone numbers and owners and allows messages to be sent to customised groups, tracking delivery and non-delivery
15. A full 'Survey Manager' module allows the running of surveys or competitions (individuals may be required to text in when they see a specific animal, or to subscribe to a text service, or to register an opinion). Responses are monitored and the export of data to programs such as Excel is allowed for more thorough analysis. Automated replies can also be created to provide general information to users, or to thank them for their message if part of a survey or competition



Sample screen shot of the 'Send Console' where outgoing messages are created, managed and sent

FrontlineSMS consists of several modules, each allowing maintenance of incoming and outgoing messages, contacts, contact groups, surveys etc.

The system is simple and standalone, providing both a top-down and bottom-up solution to SMS management

See www.frontlinesms.com