10 Alternate Access Methods and Successful Applications for Low Bandwidth

Around the world, companies and community groups are recognizing the need and the potential for using the short messaging services(SMS) of cell phones for communicating with customers, members and associates.

We have already seen that mobile phone usage in all economies is growing rapidly and has certainly reached "critical mass". Mobile phones are usually kept with the person all the time and so it becomes the ideal way of communicating reliably with people.

b2bpricenow has established a method of using mobile phones and SMS to enable small and medium rural farmers to keep up to date on commodity prices. There are many other opportunities for governments, companies and community groups to better serve their constituencies through improved communications.

Many applications that were uncovered during the research phase of this project did not necessarily involve APEC economies or just rural users. However, these examples do provide insight into the way creative people around the world are using text messaging (SMS) to communicate with employees, employers, citizens, family, friends and associates.

In addition more information may be found on SMS applications from an SMS vendor, XIAM, which develops mobile middleware and application software for operators, service providers and enterprises. They publish an on line newsletter on SMS applications. The newsletter can be found at http://www.xiam.com/news/business-gets-the-message/

10.1 Booking Hotel Rooms in the Philippines

A beach resort recently opened in the Philippines. Business during a prime vacation week was quite brisk, even though the place has no reservations office, no Web site, no fixed-line phone or Internet access. The owners of Villa Arcadia, located in a town on the southern island of Mindanao about 880 kilometers south of Manila, had only a poorly printed brochure in bad English that listed two mobile phone numbers. "Practically all our guests this week made reservations through these numbers, and most of them didn't even call - they just texted us," Jimmy Trece, the owner of Villa Arcadia, said. "Our customers save a lot of money."

10.2 text2teach in the Philippines

text2teach, a service introduced in the Philippines is a global program developed jointly by Nokia, the International Youth Foundation (IYF), Pearson and the United Nations Development Programme (UNDP). The four organizations combined their expertise in technology, training, content, and processes to create an impact on the learning of young people. It enables teachers to use mobile phones supplied by Nokia to request more than 80 full-length videos provided by Pearson, each of which introduces and illustrates a key component of the Philippine science curriculum. Upon texting, the requested video will be sent via satellite to a digital recorder connected to a television in the teacher's classroom. Each video's interactive demonstration of science concepts and ideas is expected to benefit both teachers and students.

10.3 UK Hospital Appointments

Hospital patients in the UK are set to receive hospital appointment reminders via text message in four of the country's National Health Service (NHS) Trusts, after a deal was agreed between the NHS and mobile media and technology services company Enpocket. If the pilot is successful, the company could subsequently offer the service to hospitals across the country.

It has been estimated that missed appointments cost the NHS over £400m (EUR 568 million) per year. A test that has been running at Homerton Hospital has found that text message reminders sent to

outpatients the day before an appointment can significantly reduce non-attendance and improve communications with patients.

The full launch of the service will follow. Some 30 NHS Trusts – representing some 20% of the NHS and 9 million appointments per annum – are looking at taking up the service in its first year.

10.4   Malaysian News by SMS

Online newspaper Malaysiakini launched pay-per-view access to it's news content by SMS. In order to subscribe, readers must send an SMS with the word "Mkini" to telephone short code 32300. Malaysiakini will send a return SMS with a special login code. Once this code is entered into the SMS login box on the website, the content can be accessed for the next 24 hours.

10.5   London traffic tax

On February 17, London initiated a new plan to ease traffic congestion which cripples the city, "bringing into operation the largest congestion charging scheme the world has ever seen", according to the Mayor. A tax of £5 ($8.00) is now being asked of motorists who drive into the city every day under the surveillance of 800 cameras in and around an eight-square-mile, which monitors their licence plates. Payment can be made through a call center, online or at one of the 1,500 retail outlets, as well as by SMS. (courtesy textually.org)

10.6   Insurance Policy updates by SMS in India

International Aviva Life Insurance has recently launched an SMS-based service in India, informing customers about premium payments and the policy status on their cell phones. "Updating policyholders about their policies as well as informing them about Aviva Life Insurance products, is another step towards improving customer services", reports the The Times of India

10.7   Real estate turns to SMS

Adelaide, South Australia real estate agent, Toop & Toop believes the patented Virtual Agent(VA) system is on the verge of global success. VA uses SMS, email and the web to sell houses in a manner that may reinvent how people sell and buy properties. Prospective buyers register with Toop, leaving details of area and house size and so on, and then receive an SMS or email with information on houses as they come on the market.

10.8   Livestock and Harvest Prices

Australian based Agricultural agency Elders says that SMS is replacing fax as the best way for growers and sales reps to receive up-to-date information about prices - vital in an industry where big price changes can happen quickly. They say that SMS notifications should prove even more popular with the harvest this year, with grain prices expected to remain high and growers having better crops to sell. They are also examining the use of SMS for insurance quotes and livestock prices. Email has also become an important means of reaching growers. Elders says that in some regions faxes were becoming obsolete.

10.9   Transperth SMS trial

Approximately 650 people took part in the first of Transperth's Short Message Service trials. Transperth is the public transport organization in Perth Australia. The test would show to what degree passengers accept SMS as a convenient way to get information about Transperth services. A recent police siege in Yokine showed how SMS could be used in advising passengers about delays and when the disruption was likely to end. Passenger responses would be analysed regularly during the trial. "Ultimately where we'd like to be is that we could do away with timetables," Ms Cummings said.

10.10 Western Australian Police service

The Westerne Australian Police has introduced a text messaging service for people who are deaf, hard of hearing or speech impaired. The SMS text messaging service enables people who are deaf, hard of hearing or speech impaired, to contact the police and request assistance.

10.11 Bureau Trial of SMS Messaging to Warn of Severe Weather

The Australian Bureau of Meteorology is running a trial in four cities (Cairns, Gold Coast, Sydney and Perth) using SMS to deliver an alert directly to the mobile phones of members of the public when severe weather is forecast.

The trial has already attracted over 2500 subscribers each requesting, on average, six specific services. Subscribers have received a total of 20,000 messages so far. The SMS message provides an alert that a warning has been issued and refers the recipient to the Bureau website or a 1300 telephone number for full details of the warning.

11 Lessons Learned

From the research carried out in the Philippines and Indonesia, many lessons were learned from the perspective of both developers and users. While some of these lessons could be considered best practice, we prefer to leave this judgment to the reader:

- **Cost of involvement**: Most SMEs and farmers in developing economies cannot afford to pay fees associated with a program, no matter how good that program is. There is concern that programs charging fees will not be sustainable.
- **Strategic partnerships**: Programs are more likely to succeed and grow if backed by a consortium of strategic players. Refer to Section 5 for a detailed discussion on this important lesson.
- **Customer centric**: You must be customer centric in your focus and in so doing you will have to be prepared to regularly revise your business plans to meet customer demands.
- **Technology**: Make sure your technology provider has the necessary expertise, otherwise your clients may experience business losses due to system or application failures.
- **Phased implementation**: Implementation should be phased in over time and in response to actual user requirements. Don't over-engineer, especially in the beginning stages.
- **Brand**: Need to establish brand recognition for your program and market it aggressively.
- **User interface**: Take full advantage of mobile technology as an alternative for computer access (which is prohibitively expensive for many SMEs) and promote its use extensively.
- **Education and Training**: Provide access to telecenters and offer appropriate training programs to introduce the benefits of ICT.
- **Local involvement**: It is most important to assess the information needs of the local community and involve intended users in a process of continuous development.
- **Government**: SMEs tend to look to government for support and to lead by example.
- **Alternate Access Methods**: It is important to take into consideration all appropriate access methods when developing a strategy for rural and remote users. For example, mobile phone technology may be more appropriate than computer-based telecenters for many rural and remote locales.

When comparing the experiences of APEC economies with those of other regions, the following critical points raised by the global community should be considered as well:

- Fees shouldn't be charged if the poor are expected to participate;
- Satellite technology is the most feasible technology in remote locations;
- It is most important to assess information needs of the local community and involve intended users in a process of continuous development;
- Critical pricing information can be successfully accessed from mobile phones, making it possible to involve the poorest of farmers, even those who are illiterate and not likely to be comfortable with computers;
- The poorest of the poor in rural areas are in fact women and their needs must be addressed;
- Important to recognize that rural farmers in many parts of the world do not value the same types of information as that defined by a "Western" frame of reference;
- There is a direct correlation between access to telecommunications, economic wealth and social development;
- Government leadership is a key element in making ICT work for the rural poor – especially true in developing economies;
- National ICT strategies are important, but there is no single approach;