

# A Mobile Friend in Need

**Successful location-based service offering can be a major competitive advantage and a key ARPU driver for operators**

A major problem that tourists and businessmen traveling to new places often face is the lack of easy access to information about local services. Very often, this not only makes their stay uncomfortable but expensive too. Most travelers need information on hotels and restaurants; transportation; emergency services like police, hospital, 24-hour chemist stores; places of entertainment; shopping hubs etc. A stranger in the city has nowhere to go, if he needs instant and updated information on these. Just imagine how easy life could be in a new city, if people had instant access to all such information on their mobile phones. How about all the important services being just a ring or an SMS away?

Location-based services (LBS) are finding favor with more and more operators across the world. LBS would typically include navigation services including voice-enabled ones, mobile concierge services, location tracking for field service staff and accurate billing for the onsite work that the field staff carries out, fleet management, shopping and entertainment, and personal location tracking for employees and friends. People tracking, especially keeping track of children, using mobile phones is also gaining traction especially in Europe and the US. Operators such as Vodafone and Telia Sonera have recently introduced products that turn mobile phones into GPS navigators. In countries like US, these services are driven by regulatory requirements designed mostly for tracking people in times of emergency.

While these convenience-oriented



services have been on offer from operators in Europe, Japan, and Korea for several years now; the US operators' interest in LBS has been of more recent origin. Location-based services are already very developed in Japan where, according to a report, about 20 percent of mobile phones have a GPS and all operators use location determined by triangulation for commercial services.

According to some estimates, LBS could contribute with over Euro 2 billion by 2009 to European operators' revenue. European revenues from LBS will more than double in 2005, according to telecommunications industry research firm Berg Insight. It projects that LBS will grow 153 percent this year, to reach Euro 274 million, with an average annual growth rates of 84 percent over the next five years.

Until a couple of months ago, only Nextel was offering commercial LBS in the United States. However, according

to a new study from ABI Research, that situation is changing fast. Sprint has recently introducing an operator-assisted, direction-finding service, and other operators set to join the LBS bandwagon in the near future. The process is underway already, and will gather momentum in 2006, says the ABI Research.

Even though in India LBS does not appear to be top of the mind for operators today, the situation might change as they begin to see its potential globally. BSNL is expected to start some 14 location-based services soon, in a couple of its circles—it is reportedly going to be the largest scalable LBS in the world. Other operators have also started thinking about it and at least one big operator is busy creating GPS-enabled maps of cities and towns. Good maps are key to successful LBS.

Kenneth Hyers, ABI Research's principal analyst of global wireless ser-

vices and applications research, says, "When it comes to LBS, we've moved quickly from a walking pace to a run. As we forecast last year, GPS—an essential element for LBS—is starting to be included in GSM and WCDMA handsets as well as CDMA." Location-based services, Hyers adds, would proliferate along with a variety of other services. Gaming, 411, SMS, MMS, photography — will all be bolstered and powered by LBS.

The business user market is also important for LBS and a number of corporates (for instance in Europe and elsewhere) who are using it for asset, fleet, and workforce management. According to a recent Frost & Sullivan analysis, the prospects for enterprise LBS are poised for a period of impressive growth, as organizations increasingly integrate location capabilities into their existing mobility applications. The key customers for LBS offerings are expected to be: the companies that have traditionally relied on mobile resource management (MRM) solutions; and those focused on field force management, field service and repair, and field sales. According to Frost & Sullivan (US Location-based Services for Enterprise Markets) revenue in this market totaled \$160.20 million in 2004. It projects to approach \$1 billion in 2010.

From a user perspective, an LBS offers values like convenience, productivity, entertainment, enhanced mobility, and security. For service providers, a successful LBS offering could mean a major competitive advantage and a key ARPU driver.

### Adding Value to Roaming

Roaming is one of the most wonderful features of GSM, more so in a world where mobile users want to remain connected wherever they are. Tourists, traveling businessmen, and executives can't think of a life without roaming. The increase in roaming traffic across the world is a testimony to its increasing popularity. Operators across the world billed an estimated \$50 billion from roaming in 2004 with Asia-Pac accounting for 40 percent of it. While it is very likely that roaming revenues may go down over the next few years—as roaming charges are still very irrational in many parts of the world and also because of competitive pressures—mobile operators can surely expect to



## For users, LBS offers enhanced mobility, and security. For service providers it means competitive advantage and a key ARPU driver

make more money from their roaming customers by offering them value-added, location-based services.

Consider this scenario: Whenever Shubhangi Das, a Mumbai-based businessman, is in New Delhi there are two things that she wants to do besides striking business deals—shop till she drops and eat at the best places in Delhi. However, she is often constrained by lack of information and time. Of course there are shopping and restaurant guides for Delhi, but they are not always updated and don't serve Shubhangi's need for instant and localized information. Can mobile phone be a saviour for Shubhangi? If her service provider had offered location-based services, life in New Delhi could have been much easier for her.

With an LBS-packed phone, this is what can happen. If Shubhangi was in South Delhi and wanted a taxi to reach Connaught Place, she would dial a cab service and the taxi nearest to her location would be there in under five minutes. The moment she steps down in the market, her phone would be flooded with information on discounts and offers from shops and restaurants nearest to her. Shubhangi's phone will give her all the best offers around her and she could choose from them without going around the entire market. With

instant access to information that she needs, she would not only save on a lot of time and bother, her operator would also make more money from 'roaming'.

### Successful LBS: What's Coming its Way?

A successful location-based service, however, would require lots of efforts from service providers, application vendors, and network equipment vendors. Currently, most problems that LBS users face relate to user interface. In many countries, where LBS has been there for some time, users are often put off because the services are too slow or cumbersome and many applications are not easy to use.

According to Dilip Singh, president, Telenity, "Four key challenges for any LBS provider would be: the ability to pinpoint a location accurately, tackling issues related to user privacy, good quality of big maps, and finally the cost of these services." He adds, "A value-added service like LBS cannot be offered on its own, it must be bundled innovatively." The good news, according to Singh, is that things have been improving in most key areas. Location accuracy is improving, new and good digital maps are available, and bundling is improving.

Besides working on deploying the right technology solutions and user interface, mobile operators (or niche LBS providers) would also need to work extensively for integrating their systems with a wide range of content and information providers. For example, for a successful location-based shopping information service, operators must tie up with or involve all the key shopping establishments. Selective and patchy information won't really appeal to users.

It is not only mobile operators who can be key players in the LBS game, niche LBS providers would also have an important role. In fact, they can be key drivers of the LBS market. For instance, there can be non-operator service providers who can specialize in offering location-based fleet management services to transporters. In another scenario, a hospital could offer people-tracking service, especially targeted at elderly patients and children.

**Ravi Shekhar Pandey**  
*ravis@cybermedia.co.in*