

Singapore gets ready for advanced wireless tech

Aim is to boost demand for sophisticated services on the wireless platform, writes **RAJU CHELLAM**

SINGAPORE is creating a conducive infocomm environment to capitalise on the rapidly evolving technology in mobile broadband, encompassing futuristic areas such as femtocells, long-term evolution (LTE) telephony, and machine-to-machine (M2M) communications. That vision comes from Tan Geok Leng, chief technology officer of the Infocomm Development Authority of Singapore (IDA). "The stars are aligned for mobile broadband to take off," Dr Tan told about 100 delegates at the Unwired 2010 conference at the Singapore Management University last week.

"We now have the wireless networks in place that offer excellent coverage, we have snazzy smartphones and devices that connect to the Internet, we have very affordable pricing for phone users, and there are applications galore in the wireless mobile space," he said.

Dr Tan said that as of May 2010, Singapore's mobile phone penetration was at 137.5 per cent, compared to 97.8 per cent in 2006. Singapore crossed the 100 per cent mark in 2007.

"According to Morgan Stanley, on a global basis, mobile access to the Internet will be bigger than the desktop computer's access to the Internet in the next five years," he said, adding: "This is all the more reason that Singapore needs to be at the forefront of mobile technology."

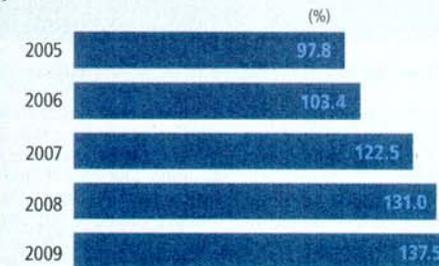
The aim is to encourage demand for sophisticated infocomm services on the wireless platform in Singapore.

"We want to foster the creation of innovative services and knowledge capital us-



Going up

Singapore mobile phone penetration



Source: IDA

ing new technologies in the wireless space," Dr Tan said.

"IDA, MDA (Media Development Authority), Spring Singapore, the NRF (National Research Foundation) and ICT industry associations are working together to encourage industry and software developers to help bring new technologies and services to Singapore."

Here's a quick peek at three key next-generation wireless technologies:

- ◆ **Femtocells:** A femtocell is a device used to boost mobile network coverage in small areas like homes or small businesses. It connects to the service provider's network via broadband and allows service providers to extend their coverage indoors, especially where access would otherwise be limited or unavailable. Con-

sumers benefit from improved coverage and better voice quality and battery life. Vodaphone, AT&T, Sprint and Verizon have launched femtocell services in the US and Europe.

- ◆ **LTE:** Long Term Evolution (LTE) falls under the fourth generation (4G) of radio technologies designed to boost the capacity and speed of mobile phone networks. Verizon Wireless and AT&T Wireless are planning to convert their wireless networks to LTE. The world's first publicly available LTE-service was launched by TeliaSonera in Sweden and Oslo in December 2009.

- ◆ **M2M:** Machine to machine (M2M) refers to technologies that let Internet-enabled devices communicate with each other without the intervention of human beings. According to research house IDC, there

will be 20 billion machines potentially talking to each other with or without human intervention, by 2020. To put it in perspective, that would be 10 e-enabled machines to every human in Asia.

"There are currently about 1.2 billion Internet-enabled devices connected to the Internet, according to analysis from Morgan Stanley," Dr Tan said.

"By 2020, there will be 10 billion units with access to the Internet. That would open up a huge array of unique services with appliances and devices talking to each other, wirelessly."

Unwired 2010 was organised by Wowo Communications and sponsored by Samsung Mobile, Microsoft, Nokia Siemens Networks and supported by IDA, Singapore IT Federation, Singapore Computer Society among others.