



# KLANG VALLEY BROADBAND

**SKMM is at the vanguard of the push to create demand for broadband in the Klang Valley. The KVB90 team tells us the story.**



# PUSH

**T**he availability of broadband Internet and communications connections is a proven and significant contributor to national aspirations and a driver of national competitiveness. The Malaysian government recognizes this and one of the actions taken to make this a reality throughout the country was the establishment of the Cabinet Committee on broadband rollout or CCB, chaired by the Deputy Prime Minister, Dato' Seri Najib Tun Abdul Razak. The committee set a target for 50% broadband penetration of households throughout Malaysia by the year 2010.

Nationwide broadband provision is one of the eight service areas identified in the Malaysian Information Communications and Multimedia Services 886 or MyICMS 886 strategy announced by the Minister of Energy, Water and Communications, Dato' Sri Dr Lim Keng Yaik. The strategy, over the period 2006 and 2010, aims to enable the delivery of advanced information, communications and multimedia services throughout Malaysia to improve the lives of Malaysians and boost the country's global competitiveness.

In 2006, there were 1.3 million broadband connections nationwide or 25% household penetration and the goal of MyICMS 886 was to achieve 4.2 million broadband connections or 75% household penetration by 2010. This has been

revised down to the aforementioned 50% penetration within that timeframe.

## The Klang Valley

While the government continues to spur the adoption of broadband nationwide, it is also aware that the largest urban conurbation in the country, the Klang Valley, had the highest level of broadband penetration. This has spurred an initiative to take the levels of broadband penetration in the Klang Valley to much higher levels and brought about projects to bring broadband, innovative services and appealing content to public and educational facilities.

While there is no hard and fast definition of the boundaries of the Klang Valley, it is generally understood to comprise the Federal Territories of Kuala Lumpur and the new administrative centre Putrajaya and the neighbouring districts of Petaling, Gombak, Hulu Langat, Klang, Sepang and Nilai, with a combined population of between five and six million inhabitants.

The Klang Valley has benefited from Malaysia's rapid economic growth over the past 30 to 40 years and it has attracted many educated, tech-savvy professionals, civil servants and business people to the area in search of employment and business opportunities.

So not surprisingly, household broadband penetration within the Klang Valley stood approximately at 30% in

December 2006 and the government realised that driving broadband penetration within the Klang Valley was an important component of its nationwide broadband drive.

Having already achieved impressive levels of broadband penetration there, it was a logical move to start a push to raise the level of broadband penetration in the Klang Valley close to full penetration. SKMM came up with the Klang Valley Broadband 90 (KVB90) initiative which aims to achieve 90% household broadband penetration within the Klang Valley by 2010. KVB90 will see the utilization of a multitude of fixed and wireless broadband technologies, including ADSL, optical fibres, WiMAX, 3G, HSDPA, iBurst and so on.

This was a realistic goal especially since most incumbent and new fixed and wireless broadband service providers usually roll out their services with the Klang Valley first before taking them to other parts of the country.

It's also more realistic to compare broadband penetration in an area such as the Klang Valley, with that in neighbouring countries such as Singapore, the Hong Kong Special Administrative Region and the city of Taipei, with broadband penetration of about 60%, 75% and 85% respectively in December 2006.

Otherwise, comparing penetration levels within a city state like Singapore with that of the whole nation of Malaysia isn't quite an apple-to-apple comparison.

It wasn't just a question of overcoming technical hurdles to get KVB90 moving. Rolling out broadband infrastructure and connections alone serves little purpose if users don't see any benefit in paying the resultant higher prices for it compared to narrowband dialup Internet. The SKMM concluded it had to create demand for broadband infrastructure through a series of pilot projects and technology showcases delivering desirable multimedia content and services over broadband infrastructure, hence the KVB90.

One of the key elements of the strategy is to promote the deployment of broadband infrastructure and services

“ A variety of broadband technologies and devices are being deployed throughout the Klang Valley ”



## ■ Broadband enhances Raja Tun Uda Library's public appeal

The Raja Tun Uda Library in Shah Alam was established as a public library in 1986 and is used by people of all ages, including children, young adults, older adults and senior citizens – all of whom are either students, in various employment and unemployed.

It provides multimedia and Internet services for all users, including 33 PCs for public use.

Packet One, in collaboration with SKMM, sponsored a WiFi hotspot, including the access equipment and a 2 Mbps backhaul connection for one year at the Raja Tun Uda Library in Shah Alam, so that its visitors can surf the Internet for free from their notebook PCs and handheld devices.

“The SKMM wants to create awareness in the usage of wireless broadband in libraries and through this WiFi in Library project, we hope to convince the state government to provide Internet access in libraries as a standard feature as this will provide library visitors, including students and senior citizens, with free or affordable WiFi access,” said Md. Radzi Din, vice-president of Special Projects, Green Packet.



Library spokesperson, Mrs. Kamalam Sugumar said that the WiFi hotspot in the library is well received by users who are satisfied with the services. The facilities are mainly used by Masters Degree students who come in to access WiFi in the afternoons and during weekends. It has become an integral part of the services offered by the library. “WiFi has become part of our library service, it will affect the users if we were to stop this service,” said Mrs. Kamalam.

in key public institutions, such as schools, universities and libraries.

### WiFi enabled libraries

In particular is the WiFi in Library project which provides WiFi hotspots in 10 public libraries within the Klang Valley and the rest of Selangor state. People can access the Internet for free from their notebook PCs and smartphones in the libraries. The project adds yet another channel for public wireless Internet access in addition to the many locations such as cafes and buildings which have been set up by private initiatives and offer WiFi for free or for small fees. The SKMM is working on this line of action with the Selangor State government as well as Dewan Bandaraya Kuala Lumpur to attract more users of the hotspots.

The first library to get free WiFi is the Raja Tun Uda Library in Shah Alam. This initiative is sponsored by broadband service provider PacketOne Networks (Malaysia) Sdn Bhd. WiFi service was available there since April 2007 and it was officially launched by the Menteri Besar (Chief Minister) of Selangor on 28 September 2007.

The service has been very well received, especially among college and university students who use it during

weekends. The SKMM will now spend a considerable sum of money to extend it to another ten libraries.

### eSchools Project

Another initiative, the eSchools Project is due to be launched in January 2008. The SKMM is working with Telekom Malaysia (TM) on this project and has identified four schools: St. John's Institution, an urban school in Kuala Lumpur; Sekolah Menengah Taman Tun Dr. Ismail, a secondary school in a residential area; Sekolah Menengah Cyberjaya, a secondary school in a sub-urban area; and Sekolah Agama Menengah Bistari USJ, a religious secondary school.

TM will upgrade the broadband connection to these schools and provide some e-applications, while the SKMM will provide an ICT facilitator to each of the said schools, who will facilitate the usage of ICT tools within the schools. This will include searching for educational material over the Internet.

This is expected to be an enhancement of the existing SchoolNet project which provides broadband connectivity to schools. The ICT facilitators will also assist teachers



## Interesting content will draw more broadband users

in using ICT tools to develop lesson plans and create an exciting environment for students to learn in.

Through this, the SKMM hopes to create a positive dependency on broadband among schools which will have a cascade effect encouraging students to want to extend the benefits of broadband in schools to their homes.

Schools can also post student attendance sheets and report cards on their own portals, and parents can access these documents online to find out how their children are doing, without having to come to the school personally to see their teacher.

TM launched the second phase of its TM eSchool project in three selected secondary schools within the Klang Valley, namely SMK USJ 12, Subang Jaya, Selangor; SMK Seksyen 11, Shah Alam, Selangor; and the SM (Laki-laki) Methodist, Kuala Lumpur.

## Mobile Broadband Highway

The SKMM is also working with PacketOne Networks (Malaysia) Sdn Bhd on the Mobile Broadband Highway Project, a technology showcase and pilot

trial providing mobile broadband access to highway users between Putrajaya and Cyberjaya using WiMAX technology.

The project will use a demo bus with Internet-access facilities on board as a testbed. Under the initial phase, the bus will travel along a route between Putrajaya and the IT city of Cyberjaya, within coverage of PacketOne's WiMAX antennas located on buildings along the route. Coverage will eventually be extended to Shah Alam.

The bus could also be used as a test bed for content developers to test out their applications for mobile users. This would create a good platform for the development of local mobile content such as the provisioning of tourist information, location-based services, information on available accommodation, entertainment, shops and so on.

## The Ubiquitous Library

Another work in progress is the Ubiquitous Library (U-Library) pilot project. This ambitious project involves networking five public libraries; including the National Library, Kuala Lumpur Library, RATU Library in Shah Alam, Hypermedia Library in Subang Jaya and Petaling Jaya Community Library

to facilitate amongst others a shared content database and inter-library book loans.

Books in the five libraries will be tagged using RFID (Radio Frequency Identification) tags. These libraries and their respective book databases will be networked together over broadband connections, with long-term plans for users to search for and book the books they want to borrow, collect and return them to the nearest library.

## Kuala Lumpur City Web Portal

The Kuala Lumpur City Web Portal is a work-in-progress, providing all information one needs to know about the



The PacketOne Demo Bus

## ■ Broadband on the road

PacketOne, a Malaysian wireless service provider has been working on initiatives to provide broadband access to people on the move. They are able to demonstrate wireless broadband communications using the ODMA (Opportunity-Driven Multiple Access) technology which PacketOne has tested to support users moving at up to 120Km/h.

ODMA is a proprietary technology by IWICS, Inc. in the U.S., in which Green Packet has a 5% stake and rights use of IWICS' intellectual property.

PacketOne were keen to demonstrate how users could access the Internet over wireless broadband while travelling in vehicles between Cyberjaya, Putrajaya and Shah Alam as one of the pilot projects under the Klang Valley Broadband 90 initiative.

The demonstration would also showcase WiMAX technology, since being an open standard, all relevant equipment would be widely available and also since the SKMM had granted PacketOne (formerly MIB Comm) the license to operate WiMAX service at 2.3GHz in March 2007.

So the Mobile Broadband Highway Project was born and its first phase would be implemented along the



route between the ICT city of Cyberjaya and government administrative centre of Putrajaya, both within MSC Malaysia.

PacketOne is currently identifying and acquiring sites to install its antennas along the route, with the support of the SKMM and Perbadanan Putrajaya (Putrajaya Corporation).

Each of the antenna will have a range of between 500m to 1.5km, depending on the height of the building they are on, the surrounding landscape and structures.

PacketOne has outfitted a 9-seater bus, with luxury seating, mains power sockets and a plasma screen that will serve as a display for a notebook PC attached to a WiMAX customer premises equipment (CPE or modem).

"This project will also encourage content developers to create applications for people on the move, such as tourist information, possibly one which provides users with relevant information to where they are," said Radzi.

For example, a strong possibility is a WiMAX location-based service that could show a video relevant to a tourist site being viewed based on users' location in relation to its antenna.

Students or members of the general public could also have the opportunity to ride on the bus and experience surfing the Internet from their own notebook PCs via WiMAX modems provided.



**Md. Radzi Din in PacketOne Demo Bus**

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## Surfing is becoming part of the lifestyle in the Klang Valley

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city, such as about ongoing events, city celebrations and happenings as well as a comprehensive directory listing of all retail outlets and restaurants in town. Merchants will be able to create their own websites and link it to this portal, thus facilitating electronic-commerce activities.

Cities like Bangkok, Singapore and Boston already have their respective portals, and as such it appears timely and apt for Kuala Lumpur to have its very own portal as well.

The portal is due to be officially launched in conjunction with the World Congress on Information Technology (WCIT) 2008, an international ICT event in Kuala Lumpur in May 2008.

### Connected Municipalities

The Connected Municipalities pilot project is meant to develop an integrated approach in deploying broadband, thereby ensuring the objectives of availability, affordability and sustainability. Four municipalities have been selected for this project which is due to be deployed early next year. The municipalities are Shah Alam, Petaling Jaya, Subang Jaya and Nilai. The pilot projects will act as a testbed that will showcase ubiquitous broadband coverage using fibre and wireless technologies such as WiMAX, WiFi, HSDPA and others to determine the best means to provide affordable broadband to the community.

Content is a key factor towards the successful implementation of this project and should be designed based on the needs of the community. This can be in the form of e-learning tools, community bulletin boards and other community based services.

For example, municipal broadband in South Korea provides VoIP, interactive real-time games, Internet Protocol TV and other content and services, while the Kenniswijk project, the Dutch national project for broadband innovation includes various municipalities and allows, for example school students to interact with and obtain information from experts, professionals or trades people in respective fields. The students could then contact, for example, a fireman or motor mechanic for information on a day in their

lives for an essay they are writing on, and also to exchange ideas with other members of their community.

### KVB90

Through these pilot projects, the SKMM not only hopes to raise awareness in the value of broadband among users but also to create demand for it and incentives for service providers to deploy broadband.

It sees each of these projects as catalysts that will help create a broadband culture in the Klang Valley which in turn will drive more households and businesses to install and use broadband in their daily routines. [.my](http://www.kvb90.com)

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