

Converging to 1Malaysia

# myBroadband

A quarterly newsletter



• Vol 1 • Number 1 • June 2009



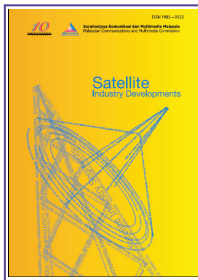
**Suruhanjaya Komunikasi dan Multimedia Malaysia**  
Malaysian Communications and Multimedia Commission

## Highlights!

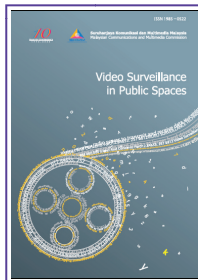
- 1Malaysia
- Networking Malaysia
- Sustained Infra Buildout
- Broadband Community Projects
- Higher Speed
- Broadband Cost & Quality
- Access in Malaysia
  - Accelerating Broadband
- SKMM Network Security Portal (NSC)

## What's up @ SKMM

\*Now available at [www.skmm.gov.my](http://www.skmm.gov.my)



Satellite Industry Developments



Video Surveillance in Public Spaces

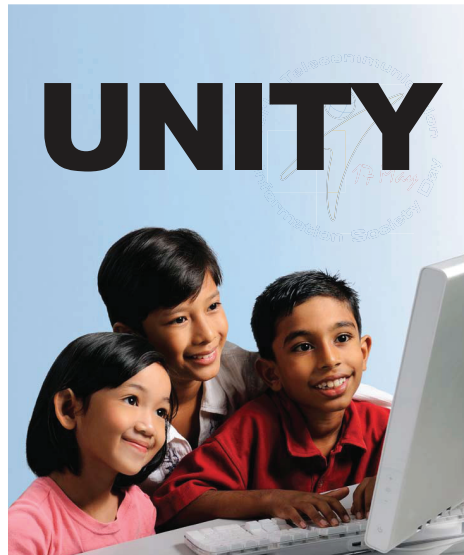
## Coming up:

- **Adex Development in Malaysia**  
- Catching Eyeballs in Changing Media
- **Mobile Virtual Network Operator (MVNO)** - The Redefining Game
- **DRM Trends and Development**  
- An Ongoing Affair
- **Industry Performance Report 2008**
- **Brief Industry Trends Report 1H 2008**

**Suruhanjaya Komunikasi dan Multimedia Malaysia**  
Malaysian Communications and Multimedia Commission  
Off Persiaran Multimedia,  
63000 Cyberjaya  
Selangor, MALAYSIA

T: +6 03 86 88 88 00  
F: +6 03 86 88 10 00  
E: [publications@cmc.gov.my](mailto:publications@cmc.gov.my)  
W: [www.skmm.gov.my](http://www.skmm.gov.my)

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## 1Malaysia

National Broadband Implementation (NBI) plan could be the launching pad to kick-start Malaysia into the circle of broadband community through the concept of 1Malaysia: People First, Performance Now. By connecting the rakyat together, broadband plays a vital role in promoting unity, improving productivity and competitiveness, thus propelling Malaysia to a brighter future.

Initial projects to raise broadband awareness and to promote the take-up of broadband services are the set up of 73 community centres and 68 community broadband libraries at a cost of RM92 million and RM29.2 million respectively.

## Networking Malaysia

In 2007, the Cabinet sets the target for broadband penetration rate by household to 50% in 2010. This is part of the National Broadband Implementation (NBI) to accelerate the supply of broadband and its take up across the country. In this initiative all broadband providers will participate in competing to provide the roll out of high speed broadband.

The thrust of the national target is to have broadband implemented to cover the whole country. Roll out will be facilitated by providing incentives and facilitating open based competition that involve the provision of fixed line Digital Subscriber Line (xDSL) and wireless technologies such as Worldwide Interoperability for Microwave Access (WiMAX) and 3G/HSDPA services. Such services will cover the demand for broadband speeds that range from 256Kbps to 4Mbps but below 10Mbps.

In terms of broadband with higher speeds of 10Mbps and above, the supply is expected for high demand economic and industrial areas. The target is to have 1.3 million premises passed. This is executed through a Public Private Partnership (PPP) agreement between TM and the government in a project called High Speed Broadband (HSBB).

## Sustained Infra Buildout

### Mini budget 2009

About RM2.4 billion was allocated to improve telecommunications infrastructure in rural areas of 89 districts by the Malaysian Communications and Multimedia Commission. Besides that, Khazanah Nasional Berhad will also invest RM3 billion in the telecommunications sector to improve broadband infrastructure in Malaysia.

Source: Mini Budget Speech, The Star, 17 March 2009

### HSBB Network

Telekom Malaysia Bhd (TM) offers open access to its High Speed Broadband (HSBB) network to service providers through provision of domestic point-to-point connectivity; domestic connectivity to international; and also dedicated interconnect connectivity between TM network and their customer network for HSBB service. More details are available on page 5.

## Broadband Community Projects

### Community Broadband Libraries (CBL)

In line with plans and targets identified under the National Broadband Plan and the Strategic Framework in MyICMS 886, SKMM has expanded the rollout of Broadband Internet to all libraries in the rural areas under the CBL project. Internet access in libraries will benefit the surrounding community and facilitate the growth of a society knowledgeable in the use of fields of communications, particularly information technology.

These CBL will be equipped with the latest IT hardware and high-speed Internet connectivity to enable rural communities to gain exposure to the latest technology in Internet communications. In addition, other IT-related activities, such as training and promotional activities, will be conducted at the libraries to encourage locals to fully utilise the facilities so as to improve their IT adoption, and ultimately, uplift their economic and social status. SKMM will appoint a supervisor, on a contract basis, for each library. They will be stationed at the library and responsible for managing and maintaining its equipment, as well as providing training and promoting the facilities to the surrounding community.

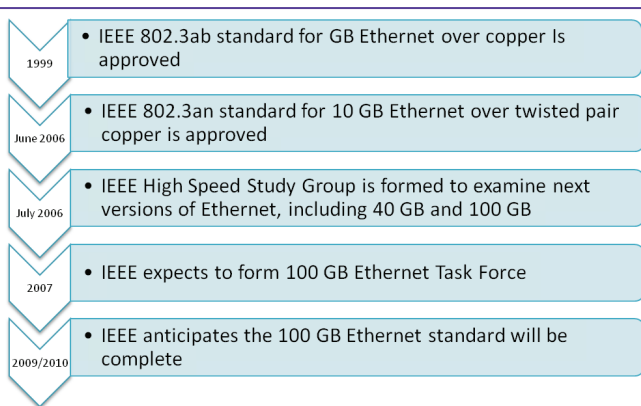
The selection of libraries for this project was based on information provided by the National Library of Malaysia and the State Library Organisations. To avoid duplication, SKMM works closely with Kementerian Penerangan, Komunikasi dan Kebudayaan Malaysia (KPKK) as similar projects have been carried out by KPKK under the Government funded USP programme.

### Community Broadband Centre (CBC)

Similar to the broadband library initiative, the CBC is equipped with the latest IT hardware and broadband connectivity for faster access to the Internet. However, the provision of facilities will be at greater capacity as the target users of CBC is bigger.

The CBC is managed by two supervisors, on a contract basis, who are responsible for conducting various IT-related activities such as training, seminars and workshops for the community. An entrepreneurship concept is adopted for sustainability in operating the CBC. Therefore, the supervisors are encouraged to conduct any IT-related side business in the CBC for additional income. For the CBC implementation to be successful, the State Governments provide their full cooperation by allocating the premises, which comprise common public locations, with good density and active community, easily accessible and within town or business area.

### Road to 100 Gigabit (GB) Ethernet



Source: IEEE Sets Sights on 100 GB Ethernet, Network World

## Higher Speed

### The Broadband Gap

In terms of broadband speed, Japan stands out with an average download speed of 63.6Mbps and more than 25% are FTTH connections. In most parts of the world the common way to deliver broadband is through DSL technology, which sends data over copper phone lines. The shorter the distance of the connection to a premise, the faster the service can be delivered.

In terms of pricing, most developed countries have devised a system to create competition by mandating the phone companies to share their lines and facilities with rival Internet providers. For example, in Japan regulation forced NTT Docomo, the incumbent phone company to sell access lines to rival Internet providers at specified "low" prices.

Source: The Broadband Gap: Your Take on the Issue, Bits, 16 March 2009

### Public-Owned FTTH

A few countries have ambitious plans for publicly-owned FTTH, which has speeds heading for at least 100Mbps, a high degree of symmetry, and OPEX low enough to support a healthy Internet Service Provider (ISP) market.

Country	Action Taken
Australia	After Telstra refused to take part in the National Broadband Network, the government decided to build a publicly-owned fibre-to-the-home network. It will be reviewed after 5 years to decide either to privatise, part privatise or leave it as status quo.
Singapore	The government wants to build 1GB to every address. Contracts have been issued for a NetCo (which will actually lay the dark fibre and also provide regulated wholesale access to the duct network) and an OpCo (a telco-like entity that will provide wholesale service over it to competing telcos and ISPs).
New Zealand	The New Zealand government is funding NZD 1.5 billion into its national dark fibre build which will be owned by local fibre companies.

Source: Fibre Down Under: It's All Part of the Master Plan, Telco 2.0, 9 April 2009

## Going Forward Green

### Go Green

Steps to recycle your PC the right way:

1. Back up your files
2. Wipe your hard drive clean
3. Salvage what you can do
4. Find a reputable recycle location
5. Spread the word

Source: PC Magazine, 17 March 2008

# Broadband Cost and Quality

## Broadband Price Getting Cheaper

Point Topic informed that DSL prices dropped more than 20% in the first three quarters of 2008. While DSL remains far more expensive for the speed you get, it has also shown the greatest drop in price. Cable prices have not fallen nearly as much as DSL which is around 12% but the service is seen to have better value on average. However, fibre is down by 6.5% and remains the best value but it is also the most expensive option.

Source: *Global Broadband Prices Plummet, Point Topic*

Note: In Malaysia, DSL broadband price starts from RM50 onwards

## IBM-BPL Vendors' Partnership

IBM recently partnered with International Broadband Electric Communications (IBEC) to explore using Broadband Power Line (BPL) in rural markets, and says they could reach 200,000 customers. The USD9.6 million partnership involves deploying BPL networks through seven electric cooperatives in Virginia, Michigan, Alabama and Indiana - with IBEC acting as the ISP. Some of the deployments are rural grants provided by the Department of Agriculture. Meanwhile in Malaysia, Realm Energy Sdn Bhd, is proposing to launch BPL.

Source: *"IBM Hopes To Reach 200k Customers With BPL - With the help of some government funds", February 2009, dsreports.com*

## Internet Traffic Growing Steadily

A Telegeography research showed that international Internet traffic has grown 53% in the period between mid-2007 and mid-2008. Utilisation of international links to Europe and Asia fell in 2008, but these rose in the US, Canada and Latin America where traffic growth was faster than the deployment of new Internet bandwidth. The volume of traffic was driven by consumer demand for video, delivered through web browsers, peer-to-peer services or streaming protocols.

Source: *Capacity Magazine - Insight, Infonetics Research, November 2008*



## DID YOU KNOW?

The mobile data traffic footprint of a single mobile subscriber in 2015 could very conceivably be 450 times more than that in 2005.

Source: *"Cisco Visual Networking Index: Global Mobile Data Traffic Forecast update", January 2009)*



## Mobile Broadband Cost Excessive?

Leading global mobile operators serving the data broadband traffic are criticised for charging extra cost to customers, and it is suggested for more transparency on cost. Customers staying within their bundled amount package should be safe in paying a reasonable amount. However, for those who go over their bundled allowance would be looking at paying a fair amount of money per Megabyte (Mb) or Gigabyte (Gb) they use. For example, customers could end up paying GBP15 extra in a month for just using 0.1Gb above the allowance (if billed per Gigabyte). Video streaming for one hour could cost anything from GBP5.25 to GBP70, enough to purchase a full set of DVD box set. In addition, roaming broadband abroad could cost up to GBP7 per Mb as compared to standard broadband over a phone line (range of 50 pence to GBP2 per Gb).

Source: *"World waking up to costs of mobile broadband traffic", 19 March 2009, www.thinkbroadband.com*

## Kudos to Japan - No. 1 in Broadband Quality

Researchers\* found that Japan (scoring 98 out of 100) is the only country ready to meet future demands. This is based on different factors studied such as speeds, latency, packet loss, jitter and service continuity. However, countries achieving a Broadband Quality Score (BQS) of 32 were deemed acceptable for today's broadband service mix. Out of the 42 countries surveyed, researchers found that 22 scored above this number while 20 fell below the threshold.

No.	Country	Broadband Penetration Rate (%)	Broadband Quality Score (BQS)#
1	Japan	59.7	98
2	Sweden	64.0	55
3	Netherlands	79.5	49
4	Latvia	35.4	45
5	South Korea	94.0	45
6	Switzerland	77.9	44
7	Lithuania	39.0	43
8	Denmark	80.0	43
9	Germany	53.8	42
10	Slovenia	50.7	40

Note: Malaysia is not included in the survey

\*BQS combines actual download and upload throughput, and latency, with different weights matching current and future application requirements

Source: *Cisco (\*Researchers sponsored by Cisco at Oxford University's Said Business School (England) and the University of Oviedo's Department of Applied Economics (Spain))*

# New Broadband Services

## In-flight Broadband

- Aircell Network and its in-flight portal, Gogo, is offering in-flight Wi-Fi services with two pricing options for travellers: USD9.95 on flights of three hours or less, and USD12.95 on flights of more than three hours.

Source: *"Aircell Adds Smart Phone In-Flight Broadband Tier", DSL Reports.com, March 2009*

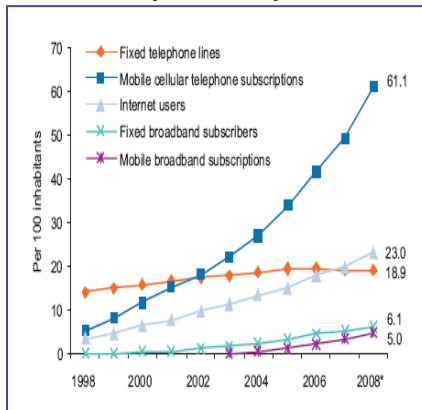
- On the local front, Maxis announced in March 2009 its partnership with Malaysia Airlines, and in-flight mobile phone operator, AeroMobile. Maxis postpaid customers may use their mobile phones and BlackBerry®-type devices to enjoy in-flight mobile communications which are equipped with the AeroMobile system. Postpaid customers will also be able to make and receive voice calls at RM15 per minute; or send or receive data at RM100 per Mb. SMSes sent are charged at RM3 per SMS while receiving SMSes is free of charge.

Source: *"Maxis Partners Malaysia Airlines & Aeromobile for In-Flight Mobile Communications", Maxis Press Release, March 2009*



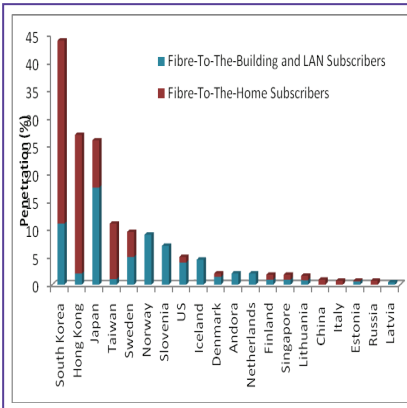
## Global ICT Services Advancing by Technology and Take-Up

**Global ICT Developments (1998-2008)**



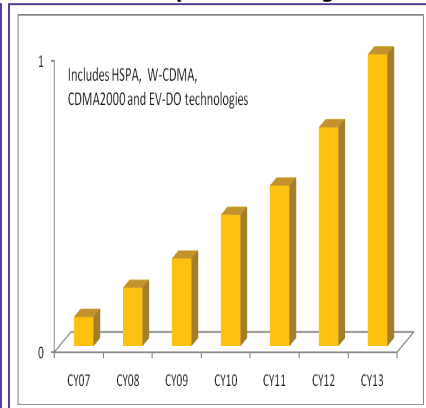
Note: Malaysia - Fixed Telephone Lines: 15.3  
Mobile Cellular Telephone Subscriptions: 96.8  
Source: "Measuring the Information Society - The ICT Development Index, 2009 Edition" by ITU, March 2009

**Household Penetration of Fibre-To-The-Home**



Source: "Total Telecom" by Oracle Communication, May 2009

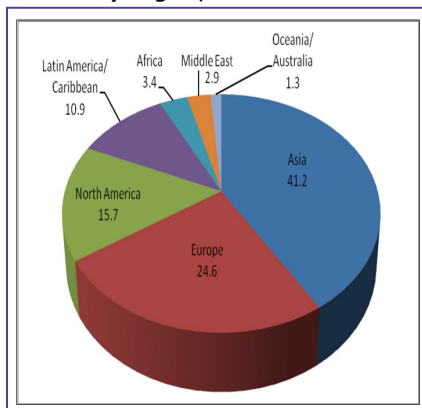
**Worldwide Mobile Broadband Subscriptions Growing**



Source: "Mobile Broadband Subscribers Continue To Boom", My BB newsletter by 3G.co.uk, March 2009

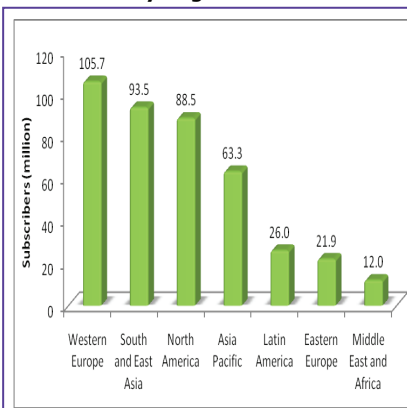
## Regional Snapshots

**World Internet Users by Region, March 2009**



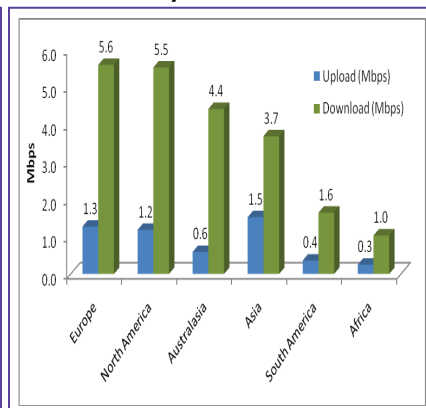
Note: A total of 1.6 billion Internet users as at March 2009  
Source: "World Internet Usage and Population Statistics", March 2009  
[www.internetworldstats.com](http://www.internetworldstats.com)

**Broadband Subscribers by Region 2008**



Source: "Worldwide Broadband Subscribers Rise to 410.9 million", March 2009  
[www.broadbandgenie.co.uk](http://www.broadbandgenie.co.uk)

**Top Broadband Speed by Continent**



Source: "World Top Continent" [www.speedtest.net](http://www.speedtest.net), April 2009

## Highlights

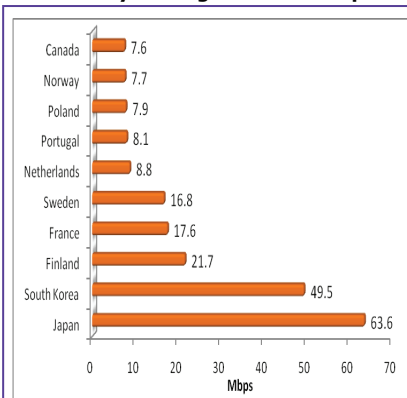
**Broadband Download and Upload Speed**

Download	5.75 Mbps	Upload	5.01 Mbps
MP3 File (5Mb)	7 sec	Email Attachment (1Mb)	2 sec
Video Clip (35Mb)	49 sec	Photo Gallery (8Mb)	13 sec
Movie (800Mb)	19 min	Video Clip (35Mb)	56 sec

- Almost 20% of the world's broadband users receive speeds of 5Mb and above
- The average broadband speed that is received around the world is 1.5Mbps
- In South Korea, 69% accessing above 5Mb

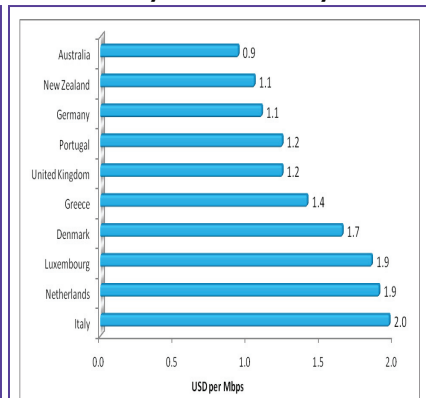
Source: [www.speedtest.net](http://www.speedtest.net); "Average Global Connection Speed is 1.5 Mbps", April 2009, [www.techwatch.co.uk](http://www.techwatch.co.uk)

**Top 10 Countries, Ranked by Average Download Speed**



Source: "2008 ITIF Broadband Rankings" by The Information Technology & Innovation Foundation, May 2008

**Top 10 Countries, Ranked by Lowest Monthly Price**



Source: "2008 ITIF Broadband Rankings" by The Information Technology & Innovation Foundation, May 2008



# Access in Malaysia – Accelerating Broadband

## Access Regime in Malaysia

The Communications and Multimedia Act 1998 (CMA) instituted a new economic environment in the telecommunications industry in Malaysia 10 years ago. The economic market segments introduced then have since seen a decade of new investments into the provision of network facilities, network services, applications services, and content applications services, and related areas which make up the communications and multimedia services market in Malaysia today.

This dynamically oriented horizontal market structure is facilitated by the CMA and its subsidiary legislations which include a licensing and access regime.

The access regime under the CMA is to ensure that all network facilities providers, network service providers, applications service providers and content applications service providers can gain access to the facilities and services listed on the Access List on reasonable terms and conditions.

This is to encourage downstream activities to flourish, thus creating a more robust market environment, one that is able to offer consumers more choice and value-for-money services. While the access regime is one of the facilitators of growth, the access regime in Malaysia need to continue to be flexible to take into consideration technological or market changes in the future.

Other jurisdictions are also experiencing similar challenges on how to manage access with the deployment of fibre or next generation networks within the context of the dynamics of their markets. In such cases, usually there may be a requirement for regulatory intervention to ensure that there is a provision of access and transparency in this provision.

Developments on Access in Malaysia	
1998	CMA enacted (subsidiary legislations were enacted subsequently)
Dec 2000	Access List Determination and Statement of Access Pricing Principles Consultation Paper
Mar 2001	A Report on a Public Inquiry under Section 55 of the Communications and Multimedia Act 1998 on Access List Determination
Mar 2001	Commission Determination on Access List, Determination No. 1 of 2001
May 2002	A Consultation Paper on Access Pricing
Jul 2002	A Report on a Public Inquiry under Section 65 of the Communications and Multimedia Act 1998 on Access Pricing
Mar 2003	Ministerial Direction to Determine a Mandatory Standard on Access Pricing, Direction No. 1 of 2003
Mar 2003	Ministerial Direction to Determine a Mandatory Standard on Access, Direction No. 2 of 2003
Apr 2003	Public Inquiry Paper on Draft Mandatory Standard on Access
Jun 2003	Commission Determination on the Mandatory Standard on Access Pricing, Determination No. 1 of 2003
Jul 2003	Public Consultation Paper on Effective Competition in the Access Network
Jul 2003	A Report on a Public Inquiry under Section 65 of the Communications and Multimedia Act 1998 on Mandatory Standard on Access
Aug 2003	Commission Determination on the Mandatory Standard on Access, Determination No. 2 of 2003
Nov 2003	A Report on Public Consultation on Effective Competition in the Access Network
Feb 2005	Public Inquiry Paper: Review and Expansion of Access List Determination
May 2005	A Report On A Public Inquiry Under Section 55 Of The Communications And Multimedia Act 1998 On Review And Expansion Of Access List Determination
Jun 2005	Commission Determination on Access List, Determination No. 1 of 2005 and Commission Determination on the Mandatory Standard on Access, Determination No. 2 of 2005
Sep 2005	Public Inquiry Paper: Access Pricing
Nov 2005	A Report on a Public Inquiry: Access Pricing
Dec 2005	Ministerial Direction on Access Pricing, Direction No. 1 of 2005
Feb 2006	Commission Determination on the Mandatory Standard on Access Pricing, Determination No. 1 of 2006
Apr 2007	Public Inquiry Paper on Access Pricing of VoIP services based on pre-fix number 0154
June 2007	A Report on a Public Inquiry on the Access Pricing of VoIP Services Based on Pre-fix Number 0154
July 2007	Variation to Commission Determination on the Mandatory Standard on Access Pricing (Determination No. 1 of 2006) Determination No. 2 of 2007
Sep 2008	Ministerial Direction On High-Speed Broadband and Access List Direction No. 1 of 2008
Dec 2008	Variation to the Commission Determination on Access Pricing (Determination No. 1 of 2006), Determination No. 1 of 2008
Jan 2009	Variation to Commission Determination on Access List (Determination No. 1 of 2005), Determination No. 1 of 2009; and Variation to Commission Determination on the Mandatory Standard on Access (Determination No. 2 of 2005), Determination No. 2 of 2009
Source: SKMM	

Malaysia has put in place the groundwork on access regulation as early as 2000.

The Access List is a list of facilities and services regulated by the SKMM. If facilities and services are on the Access List, access providers, i.e. network facilities providers and network service providers who provide those facilities and services must provide access to the access seekers (who are network facilities providers, network service providers, applications service providers and content applications service providers) on request on reasonable terms and conditions as specified under section 149 of the CMA. In addition, those facilities and services may be subject to regulated terms and conditions under the Mandatory Standard on Access and regulated prices under the Mandatory Standard on Access Pricing.

Each of the instruments, the Access List, the Mandatory Standard on Access and the Mandatory Standard on Access Pricing were determined by the SKMM subsequent to public inquiries, where the public and stakeholders concerned were given an opportunity to provide feedback and comments on the instruments.

The parties who enter into access agreements for the facilities and services on the Access List are required to submit them to the SKMM for registration. A list of the registered access agreements to date is available at the SKMM website

<http://www.skmm.gov.my/registers/cma/regisofAccessAgreement/index.asp>

### Access to the Copper Network

In 2003, the SKMM carried out a public consultation with the objective of enhancing effective competition in the access network, through the introduction of four forms of access to network elements (ANE), i.e. Full Access Service, Line Sharing Service, Sub-loop Service and Bitstream Services. Following the review of the Access List in 2005, the four forms of ANE as well as the Digital Subscriber Line Resale Service were included on the Access List. However, the implementation of the ANE services was phased to ensure an effective and sustainable implementation, commencing with Bitstream Services.

During the review of the Access List in 2009, being cognisant of the Government's objective to increase broadband penetration in Malaysia, an important focus of this review is on stimulating the level of competition in the broadband market. In this regard, the SKMM has determined that the other three forms of ANE in addition to Bitstream Services are to be implemented in areas where the high-speed broadband network is not deployed. Consequently, Full Access Service, Line Sharing Service, Sub-loop Service, Bitstream Service and Digital Subscriber Line Resale Service over the copper network are to be made available by Access Providers on regulated terms and conditions to Access Seekers. This would enable the Access Seekers to access the copper network to provide competitive broadband services to their customers.

### Access To the High-Speed Broadband Network

Under the High-Speed Broadband Network (HSBB) project<sup>1</sup> which is a collaboration between the Government and Telekom Malaysia Berhad (TM), it is expected that bandwidth of at least 10 Mbps will be deployed to end users in the inner Klang Valley, the identified Greenfield areas of Iskandar Malaysia (previously known as Iskandar Development Region) and key industrial areas.

Another important development is the Ministerial Direction on HSBB and Access List, Direction No. 1 of 2008 which directs the SKMM on the regulatory framework to be applied to TM's HSBB network.

Key features include:

- The SKMM is directed to review the HSBB network in relation to other networks. The factors to be taken into account in this review are specified to include:
  - (a) The long-term benefit to end users;
  - (b) The effect on infrastructure investment;
  - (c) The effect on competition, including any anti-competitive practices; and
  - (d) The promotion of the National Policy Objectives.

<sup>1</sup>HSBB network costs RM 11.3 billion wherein TM will invest RM8.9 billion over a period of 10 years and the government co-invest RM2.4 billion in initial years. This collaboration is to ramp up the much need infrastructure build out for high speed broadband, which is recognised as one of the necessary communications access services acting as an enabler to many key sectors of the economy that are driving the nation to accelerating its national competitiveness and contributing sustainable income generation into the future.

- The SKMM is directed to defer the implementation of Full Access Service, Line Sharing Service and Sub-loop Service where those services are provided over the HSBB network for 7 years from 16 September 2008 to 15 September 2015.
- A statement of TM's intention that the three HSBB services specified and defined in the Ministerial Direction on HSBB and Access List (High-Speed Broadband Access Services, High-Speed Connection Services and High-Speed Transmission Services) will be provided to Access Seekers on a commercially negotiated basis.
- In all other aspects, the Access List remains unaffected.

This is to create an environment where the HSBB can be deployed efficiently by TM and to promote effective competition in the communications and multimedia industry in an orderly fashion.

As a result, the SKMM carried out the public inquiry on the review of Access List in 2009, as mentioned above. Having considered all the submissions received, and in adopting a forward looking approach in regulating the high-speed broadband network, two new services, High-Speed Broadband Network Services with Quality of Service and High-Speed Broadband without Quality of Service were added to the Access List. It is important to note that the standard access obligations under the CMA apply to all Access Providers who own high speed broadband networks, including niche or smaller broadband networks (for example, those serving business customers).

With this exercise, the SKMM envisages that competition will be promoted in the wholesale market which will eventually benefit end users in the form of lower prices, better quality of service, and a generally more attractive range of products.

For further details, please refer to the SKMM's website at [www.skmm.gov.my](http://www.skmm.gov.my)

### TM's HSBB Network

Effective communications services have long been recognised as an enabler to support key sectors of the economy towards generation of the necessary resources to accelerate the national competitiveness of Malaysia. One of the necessary services identified in the MyICMS 886 strategic framework for industry development is high speed broadband services.

The MyICMS 886 (Malaysian Information, Communications and Multimedia Services 886) strategy identifies eight service areas which have been targeted to propel Malaysia in the delivery of advanced information, communications and multimedia services (ICMS) towards improving the quality of life of Malaysians and boosting Malaysia's global competitiveness. The MyICMS 886 aims to create a catalytic cycle by enhancing the existing investments in ICMS infrastructure that will support future growth of ICMS services.

The HSBB network build out is an epitome of these aspirations. The Government and TM entered into an agreement on the deployment of HSBB on 16 September 2008.



Developments on HSBB Network	
2005/06	Introduction of the MyICMS 886 strategic framework for development of the ICT industry, including the communications and multimedia industry, which identified the requirement for development of high speed broadband as one of its eight services development objectives.
Sep 2008	The Government and TM entered into an agreement on deployment of Phase 1 of the HSBB project
Mar 2009	TM starts offering High-Speed Transmission Services on a commercial basis (negotiations underway)

Source: SKMM

The development of the high speed broadband network under the HSBB project by TM is concurrent with the government initiatives to generate awareness and interest in the general population for broadband take-up. Awareness, attractiveness and affordability are key concerns in providing broadband to the masses. Broadband roll out at the rural areas is catalysed through incentives and facility based competition involving provision of xDSL, WiMAX and 3G/HSDPA. Telecenters called Community Broadband Libraries (CBL) and Community Broadband Centres (CBC) are concerted and integrated efforts or initiatives to encourage the demand side of the economic equation.

#### TM's HSBB services offered on a commercial basis

As mentioned above, TM is offering High-Speed Broadband Access Services, High-Speed Broadband Connection Services, and High-Speed Broadband Transmission Services on a commercial basis. For further details, please refer to TM's website at [http://www.tm.com.my/about-tm/hsbb/hsbb\\_etc.asp](http://www.tm.com.my/about-tm/hsbb/hsbb_etc.asp)

## Benefits of Broadband

#### Benefits to the Rakyat

- Broadband roll out throughout the country
- High speed broadband to the high demand economic areas
- Broadband connectivity up to 2Mbps for all areas
- Improvement of cellular coverage
- New telecentres in non-USP areas
- New USP areas

#### Benefits to the Government

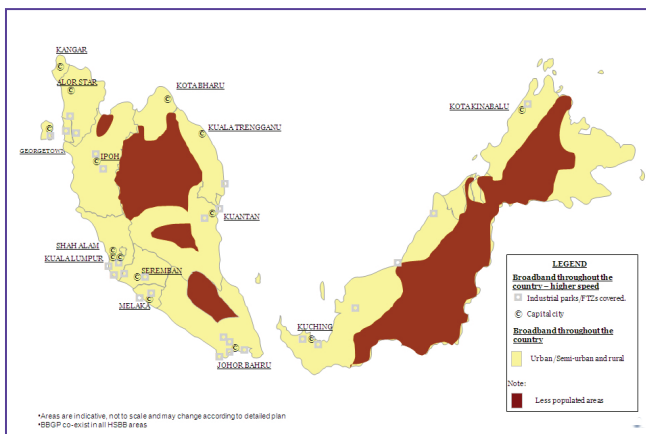
- Impact on GDP contribution
- High speed broadband connectivity to government offices and institute of higher learnings
- Enabler for Knowledge economy and creates job opportunities
- Facilitates e-government and other applications
- Increase national competitiveness and Foreign Direct Investments

#### Benefits to the Industry

- Next Generation core infrastructure
- Open access terms for ALL qualified value added service providers
- Upgrade of all exchanges to be broadband enabled
- Creates platform for content ecosystem
- Sharing of information and technology transfer to the locals



## National Broadband Implementation Plan: Broadband to the Masses and High Speed broadband in High Economic Impact Areas



Source: TM, SKMM

## Need for Enhanced Security

#### Broadband Security Measures

There are many types of threats being posted on the web with broadband connections. To name a few some are viruses, spyware, spamming, phishing, identity theft, Denial of Identity (DOI), Denial of Service (DOS), Theft of Service (TOS), Integrity of Data (IOD), Trojans, Script Attachments, Worms, Packet Sniffing and Spoofing. To curb these threats from spreading, some security measures taken by users are as follows:

#### • Firewall

Firewall software stands guard on the gateway between the private and public network. "Private network" is of our computer; and "public network" concerns the Internet. The firewall blocks unwanted visitors from intruding any files in the computer.

#### • Intrusion Prevention Systems (IPS)

IPS is thought of as a highly refined firewall alerting system or a network identifying suspicious traffic. It stops intrusion before it becomes a threat. Blocking actions occur in real time or near real time.

#### • Content Filters

Content filters are used at the Internet gateway and computer. It provides safe downloading measures. It is advisable to download only from reputable and legal sites especially on music, video and software.

#### • Two-Way Authentication System

It is a process or technology in which both entities in a communications link authenticate each other. In a network environment, the client authenticates the server and vice-versa so that network users can be assured that they are doing business exclusively with legitimate entities.

Source: "10 Things you should look for in a netbook", TechRepublic, 16 April 2009; "Protecting Against the new wave of web threats", Osterman Research White Paper, January 2009



## Essential Steps of Network Security

Crucial network risks are those that threaten the security, availability of networks and applications. This may be triggered by misconfigurations and errors that lead into problems at the server, firewall and end-point settings. So there has to be a constant measurement of security on infrastructure as well as the ability to mitigate emerging threats that needs to be continuously monitored and measured.

### Measuring what matters

- Collecting, correlating and analysing IT security information
- Discovering Baseline Network Assets
- Mapping Business Value derived from Network Assets
- Priority and accuracy in vulnerability identification
- Instilling Intelligence to raw security data
- Dynamic dashboards
- Closing gaps ensure continuous integration
- Regulatory Compliance

Source: 7 Essential Steps to Achieve, Measure and Prove Optimal Security Risk Reduction, [www.qualys.com](http://www.qualys.com)

## SKMM Network Security Centre (SNSC) portal

The SKMM through SNSC project with the cooperation of the Internet Service Providers (ISPs) monitors the communications network of the country for cyber threats and malicious agents. The SNSC portal conveys a snapshot of network threats, vulnerabilities, and exploits detected as well as information on these that it receives from other sources.

Among the network security threats faced are malware such as viruses, trojans, cyber vandalism (hacking), denial of service attacks, and data interception. The SNSC portal provides security alerts and advisory on steps and actions that can be taken by the home and corporate Internet users to neutralise them.

For more information, please log on to the SKMM Network Security Centre (NSC) portal: <http://www.skmm.gov.my/cybersecurity/> and the SNSC can be contacted at [nsc@cmc.gov.my](mailto:nsc@cmc.gov.my) or +603 8688 8180.

## HSBB Signing Ceremony 2008



## Experiencing Convergence MyBroadband 2008



## CBC Launch - Melekek, Melaka 2009



## CBC Launch - Marang, Terengganu 2009



## Launch of KL Festival 2009

