NATIONAL BROADBAND INITIATIVES IN MALAYSIA

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Establishing Broadband Strategies

National Broadband Plan (NBP)

Formation of Cabinet Committee on Broadband (CCB) and Broadband Implementation Strategy

Launching of HSBB services, National Broadband Initiatives (NBI) Economic Transformation Program (ETP) and National Key Economic Area – Communications Content Infrastructure (NKEA-CCI)

2004 2006 2007 2008 2010

MyICMS 886 High Speed broadband (HSBB) as the catalyst for broadband development

HSBB Public Private Partnership (PPP) Agreement between Government and Telekom Malaysia
### NATIONAL BROADBAND IMPLEMENTATION STRATEGY

#### Supply

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<th>1</th>
<th>Broadband for General Population (BBGP)</th>
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<td></td>
<td>Incentives and facility-based competition based on major technologies (xDSL, WiMAX and 3G/HSDPA)</td>
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<td>USP programs roll out (collective and individual access)</td>
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<td>Average speed of 2Mbps</td>
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<td>Target capitals, industrial areas and development regions</td>
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<td>Public Private Partnership (PPP) arrangement for infrastructure roll out</td>
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<td>Speed exceeds 10Mbps</td>
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| 2 | High Speed Broadband (HSBB) |

#### Demand

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<tr>
<th>1</th>
<th>Awareness</th>
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<td>Continuous government and private sector awareness initiatives</td>
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<th>Attractiveness</th>
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<td>Enhance and promote e-government, e-education and e-commerce initiatives</td>
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<td>Improve and align online content strategies and activities</td>
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<td>Leverage on development of traditional information resources</td>
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<th>3</th>
<th>Affordability</th>
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<td>Develop initiatives to reduce/improve broadband access costs (PC, subscription etc)</td>
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<td>Widen community access facilities and deployment</td>
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HSBB & BBGP Deployment Plan

**Existing Initiatives**

ZONE 1
- **HSBB 1**
  - End to end high speed infrastructure
  - Improve speed and quality

ZONE 2
- **BBGP**
  - Through multiple technologies
  - Speed up to 2Mbps

ZONE 3
- **USP Initiatives**
  - Pusat Internet 1Malaysia
  - Mini CBC
  - Cellular Towers
  - Netbook Distributions

ZONE 1
- **BBGP**
  - Fiber Backhaul for broadband services at the sub-urban and rural area
  - Speed up to 1Gbps

ZONE 2
- **BBGP Backhaul Project Phase 1** – Sabah & Sarawak
- **BBGP Backhaul Project Phase 2** – Peninsular
  - Fiber Backhaul to provide broadband services at the sub-urban and rural area
  - Speed up to 1Gbps

ZONE 3
- **BBGP+**
  - Upgrading 400 exchanges
  - Provide 420,000 ports
  - Speed up to 20Mbps

New Initiatives

Year 2008
- RMK-9
- NBI
- RMK-10

Year 2013
- RMK-10
- Budget 2014

Year 2020
- New 1,000 towers

HSBB 2 - Nationwide
- Upgrading 95 exchanges
- Provide 250,000 ports
  (410,000 premises passed)
- Speed up to 100Mbps

**USP Initiatives**
- Submarine cable from Peninsular to Sabah & Sarawak

New Initiatives

Year 2013
- RMK-10
- Budget 2014

Year 2020
- New 1,000 towers
CONNECTING MALAYSIA WITH HIGH SPEED BROADBAND

Total Project Cost
- Total project cost RM11.3 billion
- Government funding of RM2.4 billion
- TM funding of RM8.9 billion

Project Scope
- end-to-end (access, core and international)
- 1.3 million premises passed by 2012
- speed 10Mbps and above
  - Project timeline 10 years (2008 – 2018)
  - Coverage: Inner Klang Valley, Industrial areas and Iskandar Malaysia

HSBB PROJECT
- High speed connectivity to Government Offices and IPTA/IPTS
- Broadband package
- Telecenters for specific group
- Development of content platform
- Promotion and awareness program
- Revenue sharing

Regulatory Framework
- Services provided will be based on fair and equitable access
- Open access whereby other service providers can use the HSBB network

TM Undertakings

Revenue Sharing:
- Government will receive fix annual amount of RM 50mil. per year starting 2014 until 2017.
- Government also receive variable amount starting 2018 until 2025 based on the number subscription achieved by TM
HSBB IMPLEMENTATION STATUS

Malaysia has move forward into advanced Internet technology and greater Broadband Experience

1.514 million Ports installed and
51,343Fkm Fiber Optic Cable deployed Nationwide

103 Areas Ready for Services and expanding

723,014 HSBB subscribers to date

51,343Fkm
High Speed Internet Offered
From 5Mbps to 50 Mbps

1.74Tbps Total International Bandwidth Capacity
Improvement from 682Gbps

Fast Subscriptions Growth
>500k subscribers within 3 Years

Service Partnership
Other Service Provider also enjoying network sharing:
25 Company signed for HSBB Transmission services
5 Operators signed for HSBB Access services

Source: HSBB Report, Telekom Malaysia
*Data as of April 2014
HSBB PROJECT UNDERTAKING

Government Offices
Almost 6000 HSBB port provided for government offices connectivity

IPTA/ IPTS
Enable 83 Higher Education Institutions with High Speed network

Jobs Creations
project tied with 1414 local vendors and 27 foreign vendors

Pusat Siber Rakan Muda
27 Internet centers built especially for the youth

ICT Training Programme
150,000 certificates have been awarded

Broadband Packages
100,000 netbook inclusive with broadband package

Local Content Platform
development of a Content Service Delivery Platform, 274 Contentpreneur registered

Bandwidth Capacity Improvement
Bandwidth Capacity from 682Gbps to 1.74Tbps
New Cable Landing System –Cahaya Malaysia
HSBB HAS RECEIVED RECOGNITION FROM VARIOUS INTERNATIONAL BODY

Amongst the **fastest fibre rollout** in the world – End-to-end infra in 18 months plus IPTV service in 6 months.

**McKinsey & Co**

We need to establish a **world-class broadband infrastructure** to compete with other nations around the world, like Malaysia and other Asian nations.

**Frank Mather**
European Commission DG

TM’s choice of architecture ... made it one of the **fastest and lowest cost HSBB deployments** in the world.

**BT Telconsult**

Tremendous take up – **25,000 new customers a month** and growing

Malaysia is the **fastest growing FTTH market** in South East Asia and is a success story for FTTH globally.

**Frank Jaffer**
President FTTH Council AP
BBGP BACKHAUL PROJECT IMPROVING RURAL CONNECTIVITY

RM250m allocation under the 10th Malaysia Plan (RMK-10) to enhance Fiber Optics backhaul coverage and capacity at areas within populated towns and districts in Greenfield Areas.

Implementation scope

Sarawak: 23 links (1,237 fkm)
Sabah: 53 links (1,225 fkm)

Started in 2012, completed end 2013

- Design, build, own & operate (DBOO) concept
- Open access network
- Min speed 1Gbps
- Supply driven – low economic impact area
NATIONAL BROADBAND INITIATIVES (NBI)

- **Telephony**: Provides access to basic telephone service in underserved communities around the country.
- **1 Malaysia Internet Centre**: To provide basic internet access in rural and remote areas where there are no internet facilities.
- **1 Malaysia Netbook**: Socio-economic development happens when there is connectivity and people are exposed to a wealth of knowledge and services.
- **1 Malaysia Wireless Village**: Provision of free Wireless Internet (WiFi) service to selected remote villages particularly where the 1 Malaysia Netbooks have been distributed.
- **Community Broadband Library**: Furnishing rural community libraries with internet connection.

**Statistics**
- **89**: District involved
- **428**: Centres operating
- **1,142,740**: Netbooks distributed
- **99**: Community libraries have internet connection
- **4,737**: Villages connected with WiFi
- **859**: Tower has been built and operate

*Source: MCMC (Data as of April 2014)*
# Broadband Implementation Progress

## HSBB
- 1,039,422 port HSBB
- HSBB-T Services to 14 companies (230 connectivity, 124GBps)
- HSBB-A services to Maxis, Celcom dan P1
- Investment: RM2.4b from Government and RM8.9b from TM
- Total Average investment under SKMM: RM1.4b

## HSBB Projects
- 2522 Broadband Center by multiple agencies
- 246 PJK, 99 PJL dan 38 mini PJK by SKMM
- Total Average investment: RM487 million

## BBGP
- Target: 3100 (2012)
- In operation: 1408
- Total average investment: RM1.5b

## Broadband Centers
- Target: 1 million (2012)
- Distributed: 459,000
- Total average investment: RM1b

## Wireless Kampung (KTW)
- Target: 3100 (2012)
- In operation: 1408
- Total average investment: RM487 million

## Telco Tower
- Target: 1000 (2012)
- In operation: 326
- Total average investment: RM1.5b

## KOMPUTER 1Malaysia
- Target: 1 million (2012)
- Distributed: 459,000
- Total average investment: RM1b

## Impact
- 15.6% HSBB coverage to household
- 173,300 subscriptions (71 exchange’s)
- 17% subscriptions compare to available port
- Contribution of 2.2% to broadband penetration
- 23% coverage to populated rural areas
- Contribution of 1% to broadband penetration
- 2.7% coverage to populated rural areas
- 1% household coverage in rural areas
- 95% coverage in populated areas
- Contribution of 4.2% to broadband penetration (current)
- Total contribution: 12% penetration
Demand Stimulation
DEMAND STIMULATION PROGRAMS

Awareness & Promotion
• Broadband Carnival
• Broadband & ICT Training (Basic computer, content development, hardware & software maintenance & troubleshooting
• Promotion through mass media

Affordability
• 1Malaysia Netbook Distribution
• Introduction of affordable broadband packages
• NKEA CCI EPP Smart Network

Attractiveness
• Initiative under Economic Transformation Programme (NKEA) Communications Content & Infrastructure : e-Gov, e-learning, e-health, Track and Trace and connecting 1MY
• Portal My1Content to encourage content development and commercialization
• Creative content development by MDeC /FINAS
GET MALAYSIAN BUSINESS ONLINE (GMBO)

Introduction & Objective

To assist entrepreneurs to increase online sales

• To get more Malaysians businesses especially women online

Contribution towards economic development

• **RM50 million** from MCMC’s fund to benefit 50,000 entrepreneurs with RM1,000 grant each

Grant Prerequisite

Malaysian especially women, between 18-65 years old

• Business license / Registered business or company;
• Registered domain name (.com.my/.my/.edu.my/.net.my/.org.my) with an active website;
• Has a local bank account under the entrepreneur/business/company name; and
• Micro entrepreneur – less than 10 full-time employees OR annual income of less than RM200,000

Use telecommunication services to promote business

• Subscribes to telephone /cellular AND broadband services under the entrepreneur/business/company name; OR
• Member of 1Malaysia Internet Center (PI1M)
YOUTH COMMUNICATION PACKAGE

• Youth Communication Package is a scheme under the Malaysian National Broadband Initiative that grants youth aged 21 to 30 with income below RM3,000 to get **RM200 rebate off selected 3G smartphones from telco nominated registered dealers in 2013**;

• This initiative, coordinated by the Malaysian Communications and Multimedia Commission (MCMC) with the total allocation of **RM300 million**, was announced by the Prime Minister as part of Budget 2013.

**Eligibility:**
✓ Malaysians aged 21 – 30 years
✓ Monthly income lower than RM3,000
✓ New or existing user subscribing
✓ Smartphone rebate will be given only once to eligible participants

Website: [http://komunikasibelia.skmm.gov.my/](http://komunikasibelia.skmm.gov.my/)
Current Indicators

67.4% Household Broadband Penetration
‘06-11%; ‘09-31.7%

19 mil Internet User Nationwide
‘06-0.4m; ‘09-16.9m

84% 3G Coverage on Populated Area

18.09 mil 3G Subscriptions
‘06-0.4m; ‘09-7.3m

6.425 mil Total Broadband Subscriptions
‘06-0.89m; ‘09-2.6m

3.8 mil Total Mobile Broadband Subscriptions
‘06-0.15m; ‘09-0.95m

97% Cellular Coverage on Populated Area

43.1 mil Cellular Subscriptions
‘06-19.4m; ‘09-30.1m

143.7% Cellular Penetration Rate
‘06-72.3%; ‘09-105.4%

Source: MCMC
Data as of Q1 2014
Increase In Broadband Penetration And Quality Of Services Will Support The Vision To Become Country With High Economic Income In 2020

- 2010
  - 75% broadband penetration
  - Increase in quality and speed of services

- 2013
  - HSBB and BBGP
    - Contribution of 1% to GDP
    - 135,000 new jobs created

- 2015
  - Target of USD15.1 B (RM50.3 B) GNI + (potential additional USD2.33 B (RM7.5 B) from multiplier effects) in Communications Content and Infrastructure sector (NKEA CCI)

- 2018
  - GNI contribution Communications Content and Infrastructure USD billion
  - CAGR 7.8%
  - USD6.2 B (RM22.1 B)
  - Post, Courier, Broadcast
  - Regional
  - Mobile
  - Fixed

- 2020
  - GNI 2020
  - Jobs Created 2020
  - Total EPPs USD5.2 B (RM16.6 B) 25,899
  - Total BOs USD3.7 B (RM11.7 B) 17,263
  - Total EPPs & BOs USD8.9 B (RM28.3 B) 43,162
Moving Forward

WTO Commitments and Convergence Challenges

1995-2000

WTO Telecoms Reference Paper
- Competitive safeguards
- Interconnection
- Universal Service
- Licensing Criteria
- Independent Regulator
- Allocation and Use of Scarce Resources

Convergence
- Telecommunications, Broadcasting, Internet
- Self-Regulation
- Consumer protection, technical regulation, content regulation, competition framework

2000-2015

Regulatory Obligation
- Licensing framework
- Resources management
- Consultative regulation
- Industry development

On-going initiatives
- Broadband roll-out / NBI
- Consumer protection
- Cost-based access
- Infrastructure competition
- Demand and supply
- NKEA CCI initiatives

New Challenges
- Over-the-top services
- Social Media
- Lifestyle and demographic change
- Sustainable development

2015-beyond

Global Challenges
- Big Data
- Data Protection
- Co-regulation
- Resource maximization
- Bandwidth demand
- Content, rights and value-chain

Services Sector
- Quantity to Quality
- From liberalization to integrated sectoral governance reform
- Internationalization of service providers
- Ch6 – Thrust 4 – Re-engineering economic growth
- Ch7 - Thrust 5 – ICT Infrastructure

National Policy For Development
- Sustainable regulation
- Competition and competitiveness
- Risk-based, performance driven
THANK YOU

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