

**10<sup>th</sup> World Telecommunication/ICT  
Indicators Meeting (WTIM-12)  
Bangkok, Thailand, 25-27 September 2012**



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*Contribution to WTIM-12 session*

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**TITLE:** Wireless broadband subscription data collection - Malaysia's experience



## 10<sup>th</sup> World Telecommunication /ICT Indicators Meeting, Bangkok 25 – 27 September 2012

### Session 3: Wireless Broadband

**Wireless broadband subscriptions data collection- Malaysia's  
experience**

Koay Hock Eng  
Malaysian Communications and Multimedia Commission

Suruhanjaya Komunikasi dan Multimedia Malaysia. Off Persiaran Multimedia, 63000 Cyberjaya, Selangor Darul Ehsan. Tel: +603 – 8688 8000 Fax: +603 – 8688 1000 www.mcmc.gov.my



### Introduction

- To share with the 10<sup>th</sup> WTIM work done by MCMC on wireless broadband indicator drawing from **Definitions of World Telecommunication/ICT Indicators** (“ITU Definitions”) released by the ITU in March 2010 and its successor, the **ITU Handbook for the Collection of Administrative Data on Telecommunications / ICT, 2011.**(“the Handbook”)
- Prior treatment of satellite, terrestrial fixed wireless and subscriptions to dedicated data services over mobile networks with recurring subscriptions coincide with the Handbook.
- Release of the handbook was timely in helping guide the handling of access through standard mobile subscriptions and prepaid mobile broadband.

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## Introduction

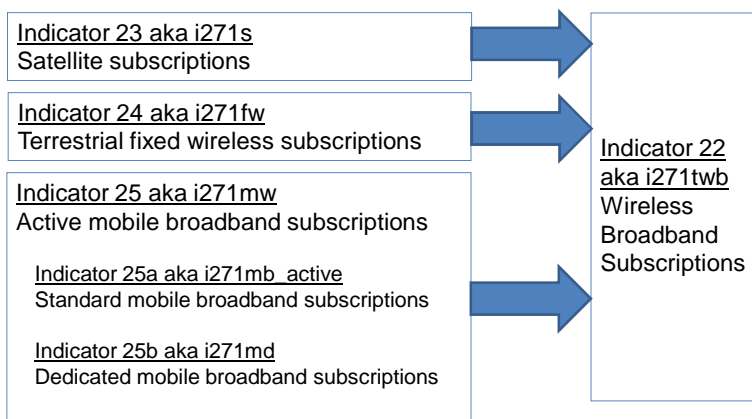
As defined in the Handbook,

- Broadband here is defined as  $\geq 256$  kbps
- Active use means the subscription was used at least once in the past three months to access the greater Internet unless it was purchased separately from voice, either stand alone or add-on with a recurring monthly subscription.

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## Counting wireless broadband subscriptions\*



\*from the Handbook

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## Malaysia : Satellite broadband subscriptions

In Malaysia access via satellite is non-residential only.

('000s)

Year	Non-residential
2006	1.9
2007	2.0
2008	4.9
2009	5.3
2010	6.4
2011	6.4

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## Malaysia: Terrestrial Fixed Wireless subscriptions

('000s)

Year	Residential	Non-residential	Total
2006	8.4	0.2	8.6
2007	7.7	0.5	8.2
2008	5.1	0.8	5.9
2009	5.2	1.0	6.2
2010	2.3	2.2	4.5
2011	1.7	2.1	3.8

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## Malaysia: WiMax

('000s)

Year	Residential	Non-residential	Total
2008	10.3	0.0	10.3
2009	127.7	2.4	130.1
2010	222.5	4.9	227.4
2011	346.7	4.8	351.5

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## Malaysia: Dedicated data mobile subscriptions

('000s)

Year	Residential	Non-residential	Total
2006	1.8	2.7	4.5
2007	38.0	58.4	96.4
2008	152.2	234.0	386.2
2009	527.0	400.8	927.8
2010	1,018.9	740.9	1,759.8
2011	1,165.2	1,043.8	2,209.0

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## Malaysian experience



- Prior to release of ITU Definitions and the Handbook, standard mobile subscriptions with active use were never collected.
- However what was known was that around 11 to 18 % of hand phone users DO use their standard mobile subscriptions to access the larger Internet but not necessarily at broadband speeds.

Internet via hand phones (% of hand phone users)	
2006	18.4
2007	13.7
2008	11.5
2009	16.3

*Annual Hand Phone Users Survey by MCMC*

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## Malaysian experience



- So too, prepaid dedicated mobile data subscriptions, not collected prior to release of ITU definitions and the Handbook.
- A start was made at end 2Q 2010 covering the months of April, May and June and counting only unique subscriptions in standard mobile subscriptions and prepaid dedicated mobile data, both with active use.

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## Malaysian experience



### Prepaid dedicated mobile data subscriptions

Year	Total
2 Q 2010	0.6 million

### Standard mobile subscriptions with active use

Year	Total
2 Q 2010	3.6 million

- The MCMC proposes to collect these numbers monthly on a rolling 3 month basis.

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## Malaysian experience



In addition to the number of subscriptions the MCMC wanted the following:

- An indication of the accuracy of the data provided by the ISPs
- An estimate of the number of subscriptions used in private households as sole means of access.
- The number of subscriptions used in households that have other means of access.
- Reasons for the use of standard mobile subscriptions and prepaid mobile broadband in exclusive .
- Intention to migrate to subscription based broadband.

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## Malaysian experience



- Survey of ICT Access and Use by Households and Individuals yet to be launched by NSO.
- Need to determine household usage.
- Solution: to refine administrative records using survey methodology so that an estimate may be made of access and use by households.
- Implementation of this solution highlighted some lessons.

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To refine administrative records, two surveys were conducted:



Standard mobile subscriptions with use of data communications at broadband speeds



Pay-per-use survey  
Aug/Sept 2010

Prepaid dedicated mobile data subscriptions



Prepaid broadband survey  
Sept / Oct 2010

95% Confidence level; +/- 2% Simple random sampling.  
Frame: MSISDN accessing the larger Internet supplied by Internet Service providers.

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## Summary results from the Pay-per-use survey

From households with no other means of access	From institutional households	From households with other broadband	Dubious cases	Sample size
782	335	1493	2192	4802
16.3%	7.0%	31.1%	45.6%	100.0%

- Combined result for 2 ISPs.
- Dubious cases refer to cases where respondents claimed they never used Pay-per-use.
- The very high percentage of dubious cases gives cause for concern.

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## Summary results from the Prepaid broadband survey

From households with no other means of access	From institutional households	From households with other broadband	Dubious cases	Sample size
1829	727	1297	886	4739
38.6%	15.3%	27.4%	18.7%	100%

- Combined result for two ISPs.
- Dubious cases is lower in prepaid.

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## Lessons learnt



Data submitted by SPs has to be cleaned

### Issues

- No SP has a dedicated statistical unit to ensure the accuracy of data submitted in terms of meeting definitions and accuracy.
- The SP's regulatory reporting department that interfaces with the regulator is not the department that extracts the data. This is done by the network specialists.
- Lapses in communication between regulatory reporting dept and network specialists may mean that bad data is submitted.
- Because of the need to clean out duplicates, large files with millions of numbers have to be checked.

Quite difficult to have a common reference date

### Issues

- Stock data
- Reference dates are usually a date in the near-past but SPs tend to give by billing cycles since these required data are picked up by billing system.

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## Lessons learnt



Broadband speeds cannot be confirmed

### Issues

- SPs tend to give subscriptions detected on the Internet regardless of speed of access.
- 3G access depends on 3G coverage and a 3G enabled device.

Walled gardens, SMS and MMS

### Issues

SPs tend not to differentiate and keep out such usage

### Others

- Accidental presence on the WWW is also picked up.
- Presence on the web is just to try out with no serious intentions.
- Apps on smartphones downloading on schedule from the WWW

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## Why use pay per use / prepaid over subscription BB

- Convenience and ease of use
- Portability
- Casual need only. Cheaper than fixed monthly subs
- Control over broadband spend
- Poor / no coverage by other alternative mode of access.
- Do not have laptop/computer

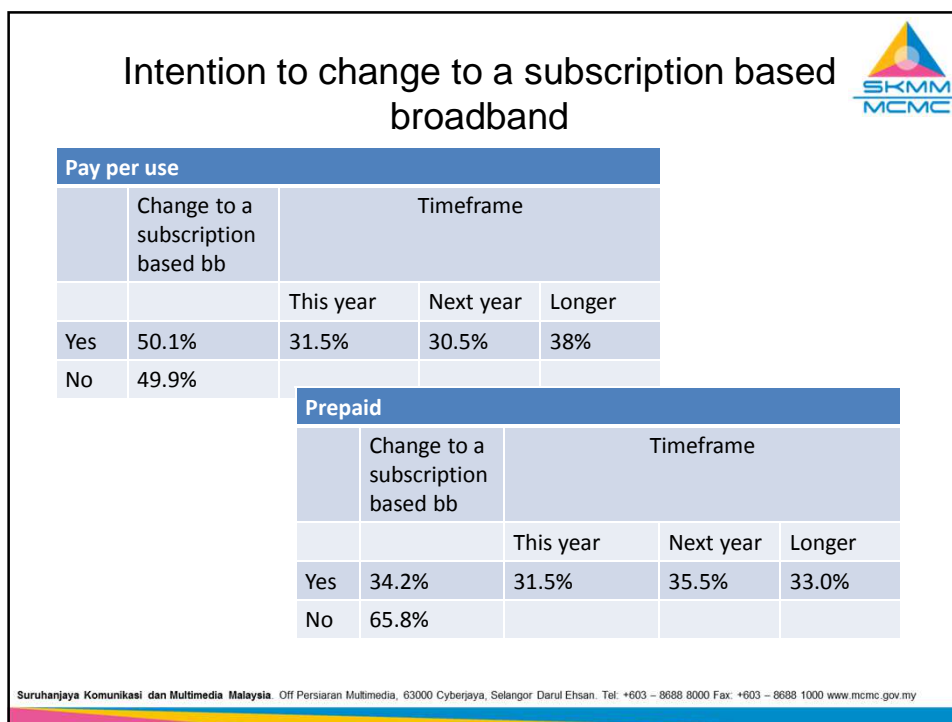
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## Why pay per use / prepaid in addition to subscription broadband

- Can access on the go
- Convenience
- Backup for regular broadband when it is slow or unstable
- When PC / laptop at home is in use

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## Some questions in conclusion



- How should data be collected? For the regulator, it will be through administrative records. Primary data collection is not without problems.
- Frequency of collection? MCMC is trying out monthly reporting of active subscriptions on a rolling 3 month period.
- How about reference periods for reporting? Common 3 month period?
- Do we want to weed out dubious cases?
- Should active use extend to intentions? Meaning does user intend to re-use within the next 3 months period.

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# Thank You

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