This document is issued as a source of information to interested parties and the general public. The information in this document is intended as a guide only. For this reason, it should not be relied on as legal advice or regarded as a substitute for legal advice in individual cases. The information contained in this document may be subjected to changes without notice.
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PREFACE


Submissions are welcome on the specific matters on which comment is sought and on the MCMC’s preliminary views. Submissions are also welcome on the rationale and analysis in this PC Paper where no specific questions have been raised. Such submissions should be substantiated with reasons and, where appropriate, evidence or source references. Written submissions, in both hard copy and electronic form, should be provided to the MCMC in full by 12 noon, 30 April 2015.

Submissions should be addressed to:

The Chairman
Malaysian Communications and Multimedia Commission
63000 Cyberjaya
Selangor

Attention: Ms Janakky Raju/ Ms Karen Woo
Email: retailrates@cmc.gov.my

Telephone: +603 8688 8000
Facsimile: +603 8688 1001

In the interest of fostering an informed and robust consultative process, the MCMC proposes to make submissions received available to interested parties upon request. The MCMC also reserves the right to publish extracts or entire submissions received. Any commercially sensitive information should be provided under a separate cover clearly marked ‘CONFIDENTIAL’. However, for any party who wishes to make a confidential submission, a “public” version of the submission should also be provided.

The MCMC thanks interested parties for their participation in this consultative process and looks forward to receiving written submissions.
### ABBREVIATIONS AND GLOSSARY

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCC</td>
<td>Australian Competition and Consumer Commission</td>
</tr>
<tr>
<td>ADC</td>
<td>Access Deficit Contribution</td>
</tr>
<tr>
<td>ADSL</td>
<td>Asymmetric Digital Subscriber Line</td>
</tr>
<tr>
<td>ASP(C)</td>
<td>Applications Service Provider Class Licence</td>
</tr>
<tr>
<td>ATUR Regulations</td>
<td>Telecommunications (Automatic Telephone Using Radio Services) Regulations 1986 (this is a regulation pursuant to the Telecommunications Act 1950, which is prior to the CMA)</td>
</tr>
<tr>
<td>BCDD</td>
<td>Broadband Commission for Digital Development</td>
</tr>
<tr>
<td>BT</td>
<td>British Telecom</td>
</tr>
<tr>
<td>CMA</td>
<td>Communications and Multimedia Act 1998</td>
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<tr>
<td>DEL</td>
<td>Direct Exchange Line</td>
</tr>
<tr>
<td>DSL</td>
<td>Digital Subscriber Line</td>
</tr>
<tr>
<td>FCC</td>
<td>Federal Communications Commission in USA</td>
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<tr>
<td>FICORA</td>
<td>Finnish Communications Regulatory Authority</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GNI</td>
<td>Gross National Income</td>
</tr>
<tr>
<td>GSM</td>
<td>Global System for Mobile Communications</td>
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<tr>
<td>GST</td>
<td>Goods and Services Tax</td>
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<tr>
<td>HSBB</td>
<td>High-Speed Broadband</td>
</tr>
<tr>
<td>IDA</td>
<td>InfoComm Development Authority of Singapore</td>
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<tr>
<td>IDD</td>
<td>International Direct Dialling</td>
</tr>
<tr>
<td>IMT-2000</td>
<td>International Mobile Telecommunications 2000</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communications Technology</td>
</tr>
<tr>
<td>IP</td>
<td>Internet Protocol</td>
</tr>
<tr>
<td>ISP</td>
<td>Internet Service Provider</td>
</tr>
<tr>
<td>ITU</td>
<td>International Telecommunication Union</td>
</tr>
<tr>
<td>JTM</td>
<td>Jabatan Telekomunikasi Malaysia, which is the telecommunications regulator predecessor to the MCMC</td>
</tr>
<tr>
<td>LAF</td>
<td>Local Access Funding, which is a mechanism introduced under TRD006/98</td>
</tr>
<tr>
<td>LTE</td>
<td>Long-Term Evolution</td>
</tr>
<tr>
<td>Minister</td>
<td>The Minister of Communications and Multimedia Malaysia</td>
</tr>
<tr>
<td>MCMC</td>
<td>Malaysian Communications and Multimedia Commission</td>
</tr>
<tr>
<td>MCMC Act</td>
<td>Malaysian Communications and Multimedia Commission Act 1998</td>
</tr>
<tr>
<td>NATESCA Plan</td>
<td>National Telephone System Charging Arrangement</td>
</tr>
<tr>
<td>NBI</td>
<td>National Broadband Initiative</td>
</tr>
<tr>
<td>NGN</td>
<td>Next Generation Network</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>NPOs</td>
<td>National Policy Objectives</td>
</tr>
<tr>
<td>OFCA</td>
<td>Office of the Communications Authority (previously known as OFTA or Office of the Telecommunications Authority) in Hong Kong</td>
</tr>
<tr>
<td>Ofcom</td>
<td>Office of Communications (previously known as Oftel or Office of Telecommunications) in the UK</td>
</tr>
<tr>
<td>PC Paper</td>
<td>This Public Consultation Paper</td>
</tr>
<tr>
<td>PI Report on</td>
<td>Public Inquiry Report : Assessment of Dominance in Communications Market</td>
</tr>
<tr>
<td>PPP</td>
<td>Public-Private Partnership</td>
</tr>
<tr>
<td>PSTN</td>
<td>Public Switched Telephone Network</td>
</tr>
<tr>
<td>RAS</td>
<td>Required Applications Service</td>
</tr>
<tr>
<td>RPI</td>
<td>Retail Price Index</td>
</tr>
<tr>
<td>SMP</td>
<td>Significant Market Power</td>
</tr>
<tr>
<td>Telephone</td>
<td>Telephone Regulations 1996 (this is a regulation pursuant to the Telecommunications Act 1950, which is prior to the CMA)</td>
</tr>
<tr>
<td>TM</td>
<td>Telekom Malaysia Berhad</td>
</tr>
<tr>
<td>TRAI</td>
<td>Telecom Regulatory Authority of India</td>
</tr>
<tr>
<td>TRD006/98</td>
<td>Determination of Cost-Based Interconnect Prices and the Cost of Universal Service Obligation, TRD006/98 dated 15 July 1998, issued by JTM</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
</tr>
<tr>
<td>USA</td>
<td>United States of America</td>
</tr>
<tr>
<td>USP</td>
<td>Universal Service Provision</td>
</tr>
<tr>
<td>VoIP</td>
<td>Voice over Internet Protocol</td>
</tr>
<tr>
<td>WiMAX</td>
<td>Worldwide Interoperability for Microwave Access</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

The MCMC is conducting this Public Consultation to review the Rates Rules, which currently regulates the retail prices of PSTN telephony services, public payphone services, emergency services, operator assistance service, directory assistance service, Internet access services and audiotext hosting services.

The PC Paper sets out the forward-looking approach to be taken in relation to retail regulation, based on the regulatory best practices as well as considering the specific context in Malaysia. The communications and multimedia sector in Malaysia has gone through major transformation over the last two decades. It has evolved from the time of the monopoly incumbent operator to the subsequent privatization of Telekom Malaysia and liberalisation of the telecommunications sector, to the convergence regime under the CMA. Competition has been introduced and continues to play a major role in the market. The MCMC believes it is timely to reconsider the role of price regulation, which was important during the period of monopoly and during the transition from monopoly to competition, in light of competition in the market. Therefore, in line with international best practices, the focus of regulation is on wholesale services in order to stimulate competition and innovation at the retail level. This would result in long-term benefit to the consumers. The MCMC has other provisions under the CMA including access and anti-competition provisions in this regard.

The focus of retail regulation would then be on meeting social policy obligations similar to the initiatives under the universal service programme. During the time of the Rates Rules, PSTN services were considered as essential services. In moving forward and considering technological changes, essential services should be services that are relevant in the 21st century. In this context, rather than to concentrate on PSTN services, the focus is on broadband services, in line with global trends as well as the approach taken under the universal service programme. In taking this broad approach, the MCMC is cognizant that in the long run, there may be a need to provide a safety net for groups of consumers who may be placed in a position of detriment or hardship, and hence, the MCMC proposes in this case, where there is data and information to justify such intervention, to consider a targeted approach to directly meet the needs of this identified group of consumers.

In tandem with this Public Consultation, the MCMC is also carrying out another Public Consultation on Affordable Broadband Packages. That Public Consultation on Affordable Broadband Packages is intended as a short-term measure and in the event that there is a need to consider the same for a longer period, the MCMC is likely to consult industry
and other stakeholders once again. The MCMC also foresees that the affordable broadband packages will be reviewed regularly, if it is continued for a longer period.

Based on the aforesaid approach, each of the regulated retail service as well as broadband services would be examined in turn. In each chapter, the MCMC sets out the context, the feedback received, the assessment made as well as the MCMC’s preliminary views, which are summarised at the beginning of this PC Paper.

The issues on which the MCMC particularly seeks comments on are also summarised at the beginning of this PC Paper. Written feedback on these and other relevant issues are welcome before the end of the consultation period. At the conclusion of this Public Consultation, the MCMC will issue a PC Report on its final views.
SUMMARY OF ISSUES FOR COMMENT

The MCMC welcomes comments particularly on the following questions and issues raised in this PC Paper:

Table 1: Summary of questions and issues for comment

<table>
<thead>
<tr>
<th>Number</th>
<th>Section</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.2.5</td>
<td>Do you agree with the MCMC’s approach to focus regulation on wholesale services, and to only regulate retail services on the basis of furthering social policy objectives?</td>
</tr>
<tr>
<td>2</td>
<td>2.3.1</td>
<td>Do you have any views on the approach proposed by the MCMC, which is to consider broadband services as an essential service in the 21st century, and at the same time, to minimise retail regulation on PSTN fixed-line services?</td>
</tr>
<tr>
<td>3</td>
<td>2.3.2</td>
<td>Do you have any views on the MCMC’s approach to consider a targeted approach?</td>
</tr>
<tr>
<td>4</td>
<td>3.4.2</td>
<td>Do you agree with the MCMC’s assessment that there is little rationale, if any, to implement a mechanism to address access deficit? If indeed there is access deficit, do you agree with the MCMC’s proposal to address the issue by relaxing retail rate regulation on PSTN services to allow the pricing structure to be more closely aligned to costs?</td>
</tr>
</tbody>
</table>
| 5      | 3.6     | (a) Do you agree with the MCMC’s preliminary view? Please state your reasons.  
(b) Do you have any views on groups that would be disadvantaged from this proposal? Please clearly identify the group. |
<p>| 6      | 4.3     | Do you have any views on groups that would be disadvantaged if the retail rate of public payphone services are no longer regulated? Please provide justification for your view. |
| 7      | 4.4     | Do you agree with the MCMC’s preliminary view? Please state your reasons. |
| 8      | 5.4     | Do consumers still regard directory assistance services as an important way to obtain fixed-line telephone numbers of businesses or residential customers? Please provide justification for your view. |
| 9      | 5.4.1   | Do you agree with the MCMC’s preliminary view that there is no need to regulate the rates for directory assistance service? Or do you think that there are other options that should be considered? Please state your reasons. |</p>
<table>
<thead>
<tr>
<th>Number</th>
<th>Section</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>5.5</td>
<td>Do you agree with the MCMC’s preliminary view? Please state your reasons.</td>
</tr>
<tr>
<td>11</td>
<td>6.3</td>
<td>Do you agree with the MCMC’s preliminary view? Please state your reasons.</td>
</tr>
<tr>
<td>12</td>
<td>7.3</td>
<td>Do you agree with the MCMC’s preliminary view? Please state your reasons.</td>
</tr>
<tr>
<td>13</td>
<td>8.3.2</td>
<td>Do you agree with the MCMC’s view that wholesale regulation is more appropriate to ensure that there is broadband competition at the retail level?</td>
</tr>
</tbody>
</table>
| 14     | 8.4.3   | (a) Do you have any views on the affordability of broadband services in Malaysia? Please provide data to support your views.  
(b) Do you have any views whether there are some segments of the Malaysian population who might not be able to afford broadband services? Please provide data as justification. |
| 15     | 8.5     | Do you view that short-term measures such as developing affordable broadband packages is sufficient to address the affordability of broadband for the lower income group? Would a longer term approach such as regulation be required to address the affordability of broadband for this same group? Please justify your view. |
| 16     | 8.6     | Do you agree with the MCMC’s preliminary view? Please state your reasons. |
SUMMARY OF MCMC PRELIMINARY VIEWS

The following Table 2 summarises the MCMC’s preliminary views on which retail services should continue to be subject to price regulation.

The MCMC stresses that this PC Paper only sets out the MCMC’s preliminary views. The MCMC invites comments in response to those preliminary views and the questions raised in this PC Paper in order to come to a final decision.

Table 2: Summary of MCMC’s preliminary views

<table>
<thead>
<tr>
<th>Service</th>
<th>MCMC’s preliminary view</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSTN services</td>
<td>There is no longer a need to regulate the rates for PSTN services. The MCMC would continue to monitor the rates for PSTN services to ensure compliance with the CMA, and should any issue arise, other provisions of the CMA would be used to address the issue(s). Nevertheless, the MCMC is open to consider targeted approach for certain groups of consumers, provided that there is data and information provided that merits such a consideration.</td>
</tr>
<tr>
<td>Payphone services</td>
<td>The MCMC considers that there is little merit in continuing to regulate the rates for payphone services through the Rates Rules. Nevertheless, the MCMC would continue to monitor the rates to ensure compliance with the CMA, and should any issue arise, other provisions under the CMA could be used to address the situation.</td>
</tr>
<tr>
<td>Required applications services</td>
<td>Emergency services would continue to be regulated at no charge. Operator assistance service would continue to be provided as required applications service, however, the rate for the operator assistance service in making calls (as defined under Rates Rules) would no longer be regulated. Directory assistance service would also continue to be provided as required applications services. However, as the usage of directory assistance service would likely continue to decline in importance, the rate of this service would also not be regulated.</td>
</tr>
<tr>
<td>Service</td>
<td>MCMC’s preliminary view</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Internet access services</td>
<td>It does not make sense to continue to regulate retail rates for Internet access service that is at its sunset stage. Even with the removal of retail regulation, the MCMC does not believe that the price of Internet access service would increase, due to competitive pressure from mobile broadband services. Nevertheless, the MCMC would monitor to ensure that the rates set by the service providers comply with the CMA, and should any issue arise, other provisions under the CMA could be used to address the situation.</td>
</tr>
<tr>
<td>Audiotext hosting services</td>
<td>The retail rates for audiotext hosting services would no longer be regulated. The MCMC views that even if audiotext hosting service rates are no longer regulated under the Rates Rules, the impact on the existing consumers who are relying on the service would not be great, as there are other platforms that consumers can use. Nevertheless, the MCMC would monitor to ensure that the rates set by the service providers comply with the CMA, and should any issue arise, other provisions under the CMA could be used to address the situation.</td>
</tr>
<tr>
<td>Broadband services</td>
<td>The MCMC views that although there are initiatives and incentives available in the market, there may be a need for further regulatory intervention from the MCMC in the form of retail rate regulation for broadband services for the benefit of the lower income group.</td>
</tr>
</tbody>
</table>
PART A: BACKGROUND

1 INTRODUCTION

The Communications and Multimedia (Rates) Rules 2002 ("Rates Rules") came into operation on 1 March 2002, revoking the Telephone Regulations 1996 ("Telephone Regulations"). The Rates Rules regulates the retail prices for Public Switched Telephone Network ("PSTN") services which include rental on exchange lines, local and national call charges, connection and reconnection fees; emergency services; operator assistance services; directory assistance service; payphone services for local calls, national calls and national calls through operator assistance, Internet access services and audiotext hosting services.

In December 2013, a questionnaire was sent to 21 licensees to inform them that the MCMC is planning to review the Rates Rules in light of developments taking place in the communications and multimedia sector and to request quantitative data on the retail services that they are providing. In addition, feedback was also sought on whether there is a need to change the current regulatory framework for retail rates and their views on regulating rates for broadband services. Subsequently in 2014, views were sought from the members of the Consumer Forum on the regulated retail services and the possible regulation of broadband services, as well as their reaction if the retail services are no longer price regulated.

In preparing for this Public Consultation, the MCMC has carefully considered all feedback received from the stakeholders listed in Annexure 1 and the regulatory developments that have taken place in other countries on this area. This PC Paper provides the preliminary results of the MCMC’s deliberations and seeks further comment from interested parties.

1.1 Legislative context

Retail rate regulation is set out in Chapter 4 of Part VIII of the Communications and Multimedia Act 1998 ("CMA"). Sections 197 and 198 relate to rate setting by service providers, wherein section 198 provides the principles that service providers should follow in setting their rates. Sections 199 to 201 relate to the powers of the Minister in relation to setting rates, for example, the Minister may make rules under section 201, i.e. the current Rates Rules or the Minister may determine special rate regulation regime under section 200.
Under subsection 201(1) of the CMA, the Minister may make rules to prescribe the level of rates to be charged for specified or classes of network facilities, network services, applications services or content applications services (collectively referred to in this section as “for specified or classes of licence categories”). Under subsection 201(2), this includes (but are not limited to) rules about the rates and variation of rates for specified or classes of licence categories, publication or disclosure of rates for the specified or classes of licence categories or rate control mechanisms for specified licensees or classes of licensees, or specified or classes of licence categories.

As mentioned above, the Rates Rules regulates the retail prices for PSTN services which include line rental services, local and national call charges, connection and reconnection charges; emergency services; operator assistance services; directory assistance services; payphone services for local calls, national calls and national calls through operator assistance; Internet access services and audiotext hosting services. These retail prices are applicable to all applications service provider licensees who provide the services.

In carrying out its task, the MCMC is guided by the objects and national policy objectives (“NPOs”) of the CMA. The NPOs, which are articulated under section 3(2), are as follows:

(a) to establish Malaysia as a major global centre and hub for communications and multimedia information and content services;

(b) to promote a civil society where information-based services will provide the basis of continuing enhancements to quality of work and life;

(c) to grow and nurture local information resources and cultural representation that facilitate the national identity and global diversity;

(d) to regulate for the long-term benefit of the end user;

(e) to promote a high level of consumer confidence in service delivery from the industry;

(f) to ensure an equitable provision of affordable services over ubiquitous national infrastructure;

(g) to create a robust applications environment for end users;
(h) to facilitate the efficient allocation of resources such as skilled labour, capital, knowledge and national assets;

(i) to promote the development of capabilities and skills within Malaysia’s convergence industries; and

(j) to ensure information security and network reliability and integrity.

Secondly, the MCMC is guided by the statutory functions of the MCMC pursuant to section 16 of the Malaysian Communications and Multimedia Commission Act 1998 (“MCMC Act”). The statutory functions that appear to be most relevant for this review are as follows:

(a) to advise the Minister on all matters concerning the national policy objectives for communications and multimedia activities;

(b) to implement and enforce the provisions of the communications and multimedia laws; and

(c) to consider and recommend reforms to the communications and multimedia laws.

The MCMC will take into consideration all submissions received within the Public Consultation period. Subsequently, the MCMC will set out its findings in a report for the Public Consultation. The MCMC looks forward to this Public Consultation process being informed by the full participation of the public and industry.

1.2 Rationale and purpose of this Public Consultation

In light of the rapid developments in the communications and multimedia sectors since the Rates Rules were passed, it is opportune to evaluate the relevance of the services that are price regulated.

The MCMC has also conducted a Public Inquiry on Assessment of Dominance in Communications Market, which resulted in the publication of a Public Inquiry Report on the matter on 24 September 2014 (“PI Report on Dominance”) and the Commission Determination on Dominant Position in a Communications Market, Determination No. 1 of 2014 on 3 October 2014. The concluded Public Inquiry also covered market definition as well as an analysis of the state of competition of retail markets, namely for fixed telephony (including Voice over Internet Protocol or VoIP), fixed broadband and data, directory services, mobile telephony and mobile broadband and data (including
Worldwide Interoperability for Microwave Access or WiMAX), which would be referred in this PC Paper, wherever relevant.

This PC Paper has been issued by the MCMC to solicit views from industry participants, interested parties and members of the public to assist the MCMC to decide on the following:

(a) which retail services (if any) should continue to be subjected to price regulation;

(b) whether new retail services (if any) should be subject to price regulation; and

(c) if so, the manner in which the prices should be regulated.

1.3 Structure of this PC Paper

This PC Paper is structured into three parts.

Part A, which consists of Chapters 1 and 2, provides the introduction and sets out the approach to retail price regulation which would be applied in the following two parts.

Part B which consists of Chapters 3 to 7 provide a discussion of each of the retail services that are regulated under the Rates Rules.

Finally, Part C considers new services, and Chapter 8 is devoted to broadband services, and whether there is a need to consider regulating broadband services under the Rates Rules.

1.4 Issues for comment

Throughout this PC Paper, the MCMC has identified specific questions and issues particularly relevant to its final decisions. The MCMC encourages comments on these questions in particular and welcomes comments on any other related issues that stakeholders believe are relevant.

It should be noted that where the MCMC has provided a “preliminary view” on any matter relevant to this Public Consultation, this view is provided in the following context:
(a) it is a proposition only that invites views from parties on whether they agree or disagree, and why; and

(b) it is not to be taken as a final view of the MCMC.
2 RETAIL PRICE REGULATION

2.1 Telecommunications outlook in Malaysia since the CMA

After the privatisation of Telekom Malaysia Berhad ("TM") in 1987 and the liberalisation of the sector, from 1993 to 1995, five licences were issued for the provision of fixed-line services. The first cellular phone service (NMT450) was introduced in 1984 and by 1995, there were five operators providing cellular services via second-generation platform, Global System for Mobile Communications ("GSM").

MIMOS was the first Internet service provider ("ISP") in Malaysia offering its services in 1987. TM was issued the second ISP licence in 1996 and in 1998, 5 licences were issued to TIME, Maxis, Mutiara (later known as DiGi), Celcom and Prismanet. By 2000, TIME, Maxis and Celcom also began offering ISP services.

From 2000 onwards, the MCMC started issuing licences - these were to migrate operators who were licensed by the previous regulator, Jabatan Telekomunikasi Malaysia ("JTM"), as well as some new operators who entered the market. Figure 1 charts the penetration rate for fixed-line or Direct Exchange Line ("DEL"), cellular and Internet dial-up services from 1998 onwards and broadband services from 2002 onwards.

Since then, there have been changes in the market. Firstly, as observed from Figure 1, there has been a slow decline in the fixed-line penetration, whilst there is a rapid growth of cellular services. This indicates a general preference for cellular or mobile services over fixed-line services, which is also consistent with the global trend. As at Quarter 3 of 2014, mobile penetration is at 145%, whilst DEL penetration (per 100 households) is at 30.7%.

There have also been technological advancements in Malaysia for cellular services. The technology has evolved from GSM services, to International Mobile Telecommunications 2000 ("IMT-2000") or more popularly known as 3G services from 2005 onwards and now with Long-Term Evolution ("LTE") available from 2013 onwards, this allows consumers to enjoy higher broadband speeds from their handset devices. On the fixed services side,

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3 Lee, op. cit., p. 7.

4 As at 2001, 21 NFP(I), 20 NSP(I), 44 ASP(I) and 19 CASP(I) licenses were issued, and 81 ASP(C) licenses were also renewed. For further details, please refer to MCMC, *Industry Performance Report 1999-2001*, p. 9.

5 MCMC, *Communications and Multimedia Pocket Book of Statistics, Quarter 3 2014*. 
PSTN was also upgraded to provide Digital Subscriber Line ("DSL") Services, with Asymmetric Digital Subscriber Line ("ADSL") being more popular, available from 2002 onwards.

Subsequently, with the deployment of fibre, high-speed broadband ("HSBB") services were available to consumers from 2010. With the availability of both mobile and fixed broadband packages (including HSBB), the usage of Internet dial-up has slowly been declining. As at Quarter 3 of 2014, broadband penetration is at 24.9% whilst broadband per 100 households is at 67.8%.

**Figure 1: Penetration rate for telecommunications services from 1998-2013**

![Figure 1: Penetration rate for telecommunications services from 1998-2013](image)


Concurrently, numerous licensees and operators have since entered the communications industry, and this has increased competition in the market. According to PI Report on Dominance, there is a difference in the competitiveness of the market, whereby mobile sector (whether it is for telephony, messaging or broadband services) is particularly competitive, whilst the fixed sector is less competitive.

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7 MCMC, Communications and Multimedia Pocket Book of Statistics, Quarter 3 2014.

8 To illustrate, as at 5 January 2015, a total of 182 NFP(I), 192 NSP(I) and 44 CASP(I) licenses were issued for 2014, whilst 20 NFP(C), 21 NSP(C), 503 ASP(C) and 23 CASP(C) licenses were also renewed for 2014. Please refer to <http://www.skmm.gov.my/Legal/Register/CMA-Registers.aspx>.

9 See pp. 42-43, 49, 54, 57 and 60.
The technical capability of these new technologies and devices, such as smartphones, spurred by vigorous competition, especially in the mobile market, have resulted in a plethora of bundled packages that are capable to be offered by operators. Therefore, it is common to see bundled packages such as voice and/or SMS bundled with broadband services, offered by fixed and mobile providers. Further, service providers with fibre networks are also able to offer bundled packages consisting of voice and/or SMS with video services (also known as triple play services).

2.2 Policy and regulation in the interest of consumers

It has generally been accepted that the welfare of consumers is a cornerstone and one of the primary reasons of policy and regulation in the telecommunications sector. This is also reflected in Malaysia as most, if not all, of the NPOs are either directly concerned with the interests of consumers or the achievement of which would ultimately benefit consumers.

Pro-competitive policies are generally viewed to enhance the benefits for consumers, as an increase of suppliers of services means that there are more choices in terms of products and services as well as more attractive prices. In most jurisdictions, these policies would include ex ante regulation and ex post competition policy. Some of the ex ante regulation include licensing policy to enable market entry, asymmetric regulation for dominant operators, interconnection, price controls, price rebalancing, numbering policy, universal service, local loop unbundling, number portability, quality of service, spectrum policy etc.

2.2.1 Price control approaches

Price controls or rate regulation is one of the tools used by regulators in ensuring that telecommunications services are widely available at affordable prices, and traditionally, it has been applied on PSTN services.

Price controls have generally been used by regulators before competition was introduced, when there was a state-owned monopoly provider. The focus was to curb the tendencies of the operator to restrict output or to increase prices.10

During the transition from monopoly to competition, regulators also maintained price controls to manage the process of price rebalancing.11 With the introduction of

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10 Information for Development Program and the International Telecommunication Union, ICT Regulation Toolkit, 2.7 Regulating Retail Prices <http://www.ictregulationtoolkit.org/2.7>.
11 Ibid.
competition, new entrants started competing with the incumbent operator in the lucrative long distance and international segments, resulting in a loss of revenue for the incumbent operator. Generally, these lucrative services cross-subsidised the low prices of local calls and line rentals to ensure that telephony is affordable to the masses. However, with the loss of revenue, this placed the sustainability of the incumbent at risk, and hence, with the ability of the incumbent operator to provide basic services to consumers being at stake, regulators had to look into rebalancing the tariffs. Tariff rebalancing means to move the prices for the different telecommunications services close to its underlying costs, as some services are priced above costs while others are priced below cost. Connection charge, monthly rental and local calls have traditionally been priced below costs, and the resulting deficits have been subsidised by the highly profitable national calls and international calls, which are priced above costs. Therefore, the regulators’ role was to manage the tariff rebalancing process; price caps and other measures were introduced to ensure that the rebalancing does not undermine the affordability of telephone services.

In many overseas jurisdictions where there has been regulation of retail prices, initially, rate-of-return controls were used to ensure that the regulated operator is able to gain the return on their capital i.e. makes sufficient profits. This methodology had some flaws, as it does not provide an incentive to the operator to be efficient and minimise cost. Instead, operators were passing on the cost to consumers in order to maintain their rate of return. Secondly, it did not address the direct concern of consumers, which were the prices. As such, direct price control through the price cap mechanism was developed to address these concerns. Price cap was typically expressed in terms of permitted rate of increase per annum based on the consumer price index ("CPI") or the retail price index ("RPI") in the United Kingdom ("UK"), via a formula such as CPI–X. X reflects the potential cost savings by the firm due either to increased efficiency or technological progress.

This price cap mechanism addressed the flaws of the rate-of-return controls such as it provides a price guarantee, which is easy for the consumer to understand and benefit from; it grants the operator an incentive to be efficient and retain the benefits from the efficiency and it is easier for the regulator to implement.

Regulators such as the UK, state governments in the United States of America ("USA") and Hong Kong have generally used a price cap mechanism, normally applied to a basket of PSTN services for their dominant operators or operators with significant market

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13 Ibid., Buckley, p. 77 and Ibid., Wheatley, pp. 281-283.
power (“SMP”). Price cap regulation normally specifies a rate at which the regulated firm’s services must decline, on average, after adjusting for inflation.

Some other regulators such as InfoComm Development Authority (“IDA”) have in place ex ante tariff approval arrangements for its dominant operators for all services that they provide (this includes wholesale and retail services), except for specific services wherein they have received exemption.

2.2.2 Retail rate in Malaysia

Prior to the CMA, rates of telecommunications services were regulated by two regulations under Telecommunications Act 1950, namely, the Telephone Regulations and the Telecommunications (Automatic Telephone Using Radio Services) Regulations 1986 (“ATUR Regulations”). The Telephone Regulations set rates for services over the fixed-line network or PSTN services, whilst the ATUR Regulations set rates for cellular services. Subsequently, on 1 August 2000, ATUR Regulations was revoked by the Minister. This decision was based on the level of competition within the cellular market, where there were five mobile operators with a fairly even distribution of market share. On the other hand, fixed-line service is deemed as an essential service and continues to be regulated under the Telephone Regulations. Though there are five operators who provide fixed-line service, the level of competition is regarded as insufficient, with TM having approximately 98% of the market share.  

MCMC and the Ministry of Energy, Communications and Multimedia (the relevant ministry at that time) conducted a retail rate rebalancing study in 2002. Subsequently, the Rates Rules came into operation in 2002 to replace the existing fixed-line telecommunications rates covered under the Telephone Regulations and included rates for audiotext hosting services and Internet dial-up services.

2.2.3 Current trends on wholesale and retail regulation

When competition developed, there has generally been a move away from price control regulation. Regulators generally only intervene and regulate to address any market failure to the extent that is necessary. Some regulators, such as Office of Communications (“Ofcom”) in the UK also follow the following principles:

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“Focus regulation to deliver equality of access beyond the levels of infrastructure where competition will be effective and sustainable (i.e. at wholesale level).”\textsuperscript{16}

“As soon as competitive conditions allow, withdraw from regulation at other levels (i.e. at retail level).”\textsuperscript{17}

In 2006, when Ofcom reviewed the retail price controls of a basket of residential retail telephony services and exchange line rental for British Telecom (“BT”), it considered the effect of wholesale services, i.e. wholesale line rental and carrier pre-selection that was taken up by BT’s competitors have constrained the ability of BT to set excessive prices. In addition, Ofcom also noted that BT has given undertakings to provide wholesale products on “equivalence of inputs”. In that regard, Ofcom decided to lift the retail price controls and allow the market to set the prices. Ofcom later also withdrew all \textit{ex ante} regulation in the downstream retail narrowband telephony market in two stages, in 2009 and 2013. In its review in 2013, it is interesting to note that even though KCOM’s market share remained high in both retail residential and business fixed calls in Hull, Ofcom removed all remaining \textit{ex ante} regulation in Hull, as it considered that \textit{ex post} competition law is sufficient to address any competition concerns.\textsuperscript{18}

In Australia, retail price controls were introduced since 1989 to most of Telstra’s fixed-line telephony services.\textsuperscript{19} Price controls were applied to baskets of services, including local calls, national long distance calls, fixed-to-mobile calls, international calls, line rentals and connection services. There were also price controls for directory assistance service (currently provided at free of charge to consumers), untimed local calls from standard phones and payphones, dial-up Internet calls and any increase in residential line rentals was subject to Australian Competition and Consumer Commission (“ACCC”) being satisfied that Telstra is offering a low income package. These were set out under Telstra Carrier Charges – Price Control Arrangements, Notification and Disallowance Determination No. 1 of 2005 (Amendment No. 1 of 2012) which expired on 30 June 2014.

In April 2014, the Department of Communications issued a consultation paper on deregulatory measures, amongst which includes deregulating price controls.\textsuperscript{20} In the paper, it was argued that there exists a vibrant and competitive telecommunications

\begin{itemize}
\item \textsuperscript{17} Ibid., p. 23.
\item \textsuperscript{18} Ofcom, \textit{Review of the fixed narrowband services markets: Statement on the proposed markets, market power determinations and remedies}, 26 September 2013, pp. 2, 39.
\item \textsuperscript{19} Retail price controls are only applicable to Telstra.
\item \textsuperscript{20} Department of Communications, \textit{Consultation paper: Proposed measures for the Telecommunications Deregulation Bill No. 1 2014}, April 2014, pp. 15-17.
\end{itemize}
market and secondly, competition and wholesale regulation of Telstra’s infrastructure has resulted in Telstra consistently pricing below the regulated retail price caps rendering the price controls no longer necessary. The MCMC understands that the consultation has yet to conclude.

In essence, where there is competition in the market, regulators have deregulated their ex ante retail controls on telephony services; however, they have either retained ex post competition provisions to address any anti-competitive concerns or some have retained some retail controls to meet social policy objectives. The example of the UK has already been provided above. Office of the Communications Authority (“OFCA”) in Hong Kong has also moved from an ex ante tariff approval requirement to ex post regulation for all services provided by the licensees, viewing that anti-competitive concerns are best addressed through monitoring of the competition provisions. The Telecom Regulatory Authority of India (“TRAI”) has also decided to forebear from regulating tariff for cellular services and left it to market forces. For the fixed line services, TRAI also decided that retail regulation was no longer necessary for urban subscribers as there was competition, and only maintained it for rural subscribers. Australia decided not to regulate retail services where the wholesale provider, NBN Co was already regulated, except for two services (local calls and directory assistance service) based on a social policy objective.

**2.2.4 Views of service providers**

During the Public Inquiry on Dominance, views were sought on the effectiveness of the Rates Rules in promoting competition at the retail level for fixed telephony services. In the PI Report on Dominance, the MCMC noted that the comments received were mixed, where Celcom and YTL believed that the Rates Rules is not successful at promoting competition; whilst Packet One, U Mobile and TM viewed that it plays a role in ensuring competition. Maxis, TIME and YTL also submitted that a revision of the Rates Rules is necessary in order for it to be more effective in reflecting cost recovery; to adapt to changes in Internet Protocol (“IP”) technology, rather than to be based on PSTN-centric geographic charging areas; and finally, it should allow fixed telephony to be competitive in relation to mobile telephony.  

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24 See p. 28.
In addition, preliminary feedback was also sought from the service providers on whether there is a need to change the regulatory framework for retail price regulation or to consider incentive-based regulation such as price cap. In general, Celcom, Maxis, Packet One and TIME were of the view that there should be a change in the approach for price regulation. Celcom believed that there should be deregulation of retail prices, whilst Maxis submitted that PSTN retail regulation should only apply to the incumbent, Packet One opined that technological neutrality should be reflected in the regulation and TIME viewed that retail price regulation should only apply where there is lack of competition. TM, U Mobile and YTL did not consider a change in approach is required, although TM and YTL supported the review of the Rates Rules for different reasons. Broadly, there was a lack of positive support for implementing price cap.

Celcom viewed that there is a need to consider deregulating all retail prices. Operator assistance service, Internet access service through PSTN dial-up and audiotext hosting is no longer available, as customers use other platforms. Public payphone service is also declining in popularity due to the pervasiveness of mobile telephony services, compounded by the low rates in the Rates Rules and vandalism. For the PSTN services (including line rental, connection and reconnection service), Celcom submitted that addressing tariff rebalancing via the Rates Rules is also no longer relevant.

DiGi viewed that it is not necessary for a price cap as the mobile industry has been competitive and prices have been decreasing steadily over the years.

Jaring suggested regulating prices based on income / Gross Domestic Product (“GDP”) per capita.

Maxis viewed that the Rates Rules are currently applicable to PSTN services for all operators and that it has not been revised regularly. Further, based on the MCMC’s costing on wholesale services, retail rates are not sufficient for cost recovery. As such, if retail rates continue to be regulated through the Rates Rules, regular reviews of the Rates Rules should be conducted. Based on a benchmarking conducted on the regulation of retail services in selected countries (Australia, New Zealand, the UK and Singapore), it clearly shows that most of the regulations are on PSTN fixed services and are applicable to the dominant service providers only.

According to Maxis, several other countries, such as Australia, New Zealand and the UK, imposed price caps where the retail rates are evaluated for a fixed period (e.g. 3 years) subject to an inflation and efficiency adjustment (RPI-X), and the price caps are normally applied on dominant fixed operators. However, this approach also requires regular reviews.
Packet One believed that the principle of technology neutrality should be upheld in the review of CMA and its subsidiary legislations. A new regulatory framework needs to be established to reflect technological developments, trends and emergence of new markets. Services that were once provided over PSTN are now supplied via broadband, IP and soon, over LTE. More importantly, broadband service has been included as part of the universal service, and this has a major impact on household broadband penetration. Despite this, broadband has not been classified as a regulated service. Broadband has also replaced dial-up to access the Internet, hence, Internet access service should not be confined to PSTN dial-up only.

Pernec Paypoint believed that a minimum price capping will ensure that customers gain access to good products. If there is price regulation, then it should be applied to certain retail services used on a daily basis, such as, data and connectivity services.

TM viewed that the MCMC’s approach to retail price regulation need not change. However, it does not support retail price regulation for broadband services. Even with the presence of Rates Rules, market forces have driven down the maximum price in Rates Rules. Given fixed-mobile substitution and the previous costing exercise which has shown the existence of access deficit, TM viewed that even if TM is allowed to increase the price of line rental to be based on cost under section 198 of CMA, it would still not allow TM to recover its cost and would result in higher customer churn.

In addition, TM submitted that there are difficulties with price cap regulation, where a determination must be made on the appropriate cap based on operators’ costs, their productivity gains relative to the whole economy and an adjustment for inflation. These components of the price cap are difficult to calculate and are subject to a high degree of variability. Further, some countries have also considered price cap to be a legacy regulatory tool and have moved away from it. Instead, TM viewed that the focus of regulation should be on the efficient operation of the wholesale market and on ensuring transparency.

TIME viewed that service providers should be able to set their own prices according to the intensity of competition in the market, and prices should only be regulated in geographical markets where there is a lack of competition. Regulating prices broadly across a service decreases competition for that particular service.

According to TIME, price cap regulation is not suitable for Malaysia since its implementation requires prices to be adjusted with respect to inflation rates. TIME viewed that inflation rates would be erratic in the short to medium term and therefore
adoption of price cap regulation will result in frequent changes to the regulated prices, and this would create a resource constraint on the MCMC.

U Mobile supported maintaining the current arrangement but proposed limiting it to local calls (PSTN fixed-to-fixed) including emergency services, operator assistance and payphone service. Incentive regulation is not required since PSTN was sunk investment. However, mobile services should not be subject to the Rates Rules as market-based competition has resulted in low prices, evident from the price trends over the years.

YTL proposed that the regulatory framework for retail services should keep abreast with technological changes. With the migration to IP Next Generation Network ("NGN"), service providers are able to implement “one nation one rate”, and this renders the charging districts under the National Telephone System Charging Arrangement ("NATESCA Plan") as obsolete. Further, services and customer devices offered are no longer homogenous and hence are not amenable to standard rate rules. In addition, market competition should be allowed to dictate prices of retail services, including for PSTN retail services.

2.2.5 Proposal in the Malaysian context

The MCMC notes the views expressed above, including on the limitations of the Rates Rules. The specific concerns related to the different retail services would be discussed in their respective chapters under Part B.

The Rates Rules were intended to ensure affordability of essential services, i.e. fixed-line services. As such, in line with international practices, the MCMC would also prefer to consider ex ante regulation generally at the wholesale level (rather than through retail regulation), such as through regulating facilities and services on the Access List for both traditional fixed-line telephony services and any new services that met the relevant criteria for listing the services. When the facilities and services are regulated at the wholesale level, it would stimulate competition and innovation at the retail level. This would ensure that prices are oriented towards cost, increase innovative packages and bundles offered by the operators. The exception for retail regulation is on the basis of social policy objectives as applicable in the Malaysian context. In the event that there is anti-competitive conduct engaged by any licensee, the MCMC would rely on its ex post competition provisions to remedy the conduct.
Question 1
Do you agree with the MCMC’s approach to focus regulation on wholesale services, and to only regulate retail services on the basis of furthering social policy objectives?

2.3 Social policy obligation

In considering retail regulation, regulators have to take into account social policy objectives to safeguard the welfare of consumers by ensuring that affordable telecommunications services are provisioned to its citizens.

There is also an economic benefit when an additional person joins the network, as the existing members of the network can now contact the new person, which is known as a network externality, and secondly, they can now also receive calls from the new person, known as call externality. More importantly, there is a social benefit attached to additional persons joining the network. This brings a positive value to society when groups of communities with lower income, who are marginalised, vulnerable or are otherwise deprived of telecommunications services, are no longer excluded. Instead by being included, they are able to exercise their rights as citizens and participate more fully in the information society.25

Telecommunications services have been considered as an enabler and equaliser of the digital divide between those who “have” and those who “have not” and this consideration weighs heavily on the minds of policymakers and regulators worldwide.

In the USA, the Telecommunications Act of 1996 recognises that its universal service system should be aligned with advances in technology. Therefore, in defining relevant telecommunications services to be provided under its universal service system, the following criteria should be met:

“(A) are essential to education, public health, or public safety;
(B) have, through the operation of market choices by customers, been subscribed to by a substantial majority of residential customers;
(C) are being deployed in public telecommunications networks by telecommunications carriers; and
(D) are consistent with the public interest, convenience, and necessity.”26

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26 Section 254(c)(1) of the Telecommunications Act of 1996.
In Malaysia, universal service provision ("USP") programmes are aimed at bridging the digital divide, through providing communications access to targeted underserved areas (which can be urban or rural areas), localities and groups within the identified communities. Whilst the goal has remained constant which is to ensure accessibility, like in the USA the manner in which the goal is achieved has changed from telephony to broadband in tandem with the change in technology.

Prior to the CMA, under JTM, universal service started with an emphasis on provision of telephony services at affordable prices. The scope was limited to the provision of essential services which comprise of basic telephony (including emergency services and directory enquiries), public payphones in rural areas and services for the disabled.  

Subsequently, when the CMA came into effect, USP initiatives started in 2002 with the deployment of fixed telephony services in rural areas, and 2,130 public payphones are funded under the USP. Subsequently, with the advancement of technology, a new strategy was formulated for USP, whereby fixed telephony services were complemented by programmes intended to expand accessibility of broadband services to underserved rural areas. It commenced with 1Malaysia Internet centres and community broadband libraries in 2007. Subsequently, 1Malaysia wireless villages were established to extend the coverage of the 1Malaysia Internet centres and to increase accessibility of broadband to the village. As at Quarter 3 of 2014, there are 437 1Malaysia Internet centres, 120 mini community broadband centres, 99 community broadband libraries and 4,803 1Malaysia wireless villages established under the USP programme. In addition, USP also funds towers under Time 3 initiatives, which started in 2010, to extend the geographic coverage of cellular services nationwide. This is to ensure that communities living in underserved areas are connected to the Information and Communications Technology ("ICT") infrastructure and are hence empowered to improve their livelihood, to be part of social activities and to contribute to the economic development of the country.

2.3.1 Essential services for the 21st century

Along the same vein as the USP initiatives, retail rate regulation can be considered as another regulatory lever to ensure affordability of telecommunications services and inclusivity of all communities.

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29 Ibid.
30 MCMC, Communications and Multimedia Pocket Book of Statistics, Quarter 3 2014.
When the Rates Rules was introduced in 2002, it continued to regulate rates of the fixed-line services, which were deemed as essential service, under Telephone Regulations. This has also generally been the approach taken by other regulators at that time.

However, since then as mentioned above, there has been a major shift in technological advancement where narrowband networks are slowly being replaced by broadband networks. Whilst PSTN would continue to exist for some time, there has been a steady increase in investment in fibre broadband networks in the fixed-line market. Likewise, with advancement in mobile technology, especially with LTE, mobile broadband is also starting to gain pace and momentum.

In terms of forward-looking governmental policies, there is also an increasing focus on broadband, such as National Broadband Initiative (“NBI”). In the midst of the technological advances and progress, the question that arises is whether the approach towards retail price regulation that was framed for a legacy network is still the appropriate policy. The MCMC is reconsidering the question of essential services in line with that which is considered necessary in this day and age.

Similar to the thinking in the USA, universal service in Malaysia has long considered advances of technology, and have implemented broadband services in underserved areas through various means. This along with the growing emphasis on broadband under NBI, the gradual decline in fixed-line penetration and the growth in broadband penetration seems to indicate a future based on broadband services. Hence, there is merit to consider broadband services as an essential service in the 21st century.

With the main consideration on broadband services, there would be less of an emphasis on maintaining rate regulation for services on the legacy PSTN platform, except for services which are considered essential even on the PSTN platform. These would be considered further in the following chapters.

<table>
<thead>
<tr>
<th>Question 2</th>
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<tr>
<td>Do you have any views on the approach proposed by the MCMC, which is to consider broadband services as an essential service in the 21st century, and at the same time, to minimise retail regulation on PSTN fixed-line services?</td>
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2.3.2 Targeted approach

Notwithstanding the above, in espousing generally that there may be less of a need to regulate legacy PSTN retail services for the mass public as a result of growing emphasis
on broadband services, the MCMC is open to consider a safety net for those who could be placed in a position of disadvantage or hardship. This is in recognition of social policy obligations, and is in line with international experience such as in Australia, India and the UK.

However, for this approach to work and to directly address the needs of the beneficiaries, the groups must be clearly identifiable. In this regard, the MCMC does not have complete information and would be keen to receive feedback in order to ensure that the purposes can be met.

**Question 3**
Do you have any views on the MCMC’s approach to consider a targeted approach?
PART B: CURRENT REGULATED RETAIL SERVICES

3 PSTN SERVICES

3.1 Introduction

PSTN services typically relate to the provision of telephony services over the copper or fixed-line network, and under the Rates Rules, rates are set for call charges (local calls and national calls), line rental, connection and reconnection fees. Traditionally, a fixed customer on a monthly basis would be billed a line rental charge as well as call charges (based on number of minutes of local calls, national calls, international calls and fixed-to-mobile calls made). However, these days, with the availability of bundled packages offered by service providers, this has also changed, and depending on the packages chosen, there may not be a line rental charge payable or there would be a bundle of minutes included in the package or a flat rate charge for calls made. This would be further elaborated in the following sections.

Call charges in the Rates Rules were based on the NATESCA Plan, which classified the charge areas of switching centres. Local calls are regulated at 8 sen for the first 2 minutes and 4 sen for each additional minute. National calls are regulated according to distance, duration of call and time of day the call is made, ranging from 10 sen per minute to 86 sen per minute.

Line rental charges depend on the size of the exchange, whether it is for business or residential customers and whether the customer is located in Peninsular Malaysia or Sabah and Sarawak. Line rental charges for residential customers are RM25 (for exchange exceeding 500 lines) and RM13 (for exchange with 500 lines and below), whilst for business customers in Peninsular Malaysia, they are charged either RM45 (for exchange exceeding 500 lines) or RM20 (for exchange with 500 lines and below) and RM40 (for exchange exceeding 500 lines) or RM20 (for exchange with 500 lines and below) for those in Sabah and Sarawak. Apart from that, the Rates Rules also stipulate connection fee at RM75 and reconnection fee at RM10.

3.2 Current status of PSTN telephony services

As at Quarter 3 of 2014, there were a total of 3,597,000 direct exchange line (“DEL”) connections, of which 2,149,000 were residential lines.\textsuperscript{32} DEL connections have been on

\textsuperscript{32} MCMC, \textit{Communications and Multimedia Pocket Book of Statistics, Quarter 3 2014}.
a general declining trend. Figure 2 shows the trend for both residential and business DEL connections from 2009 to 2013.

![Figure 2: DEL connections from 2009 to 2013](image)

Source: MCMC, Communications and Multimedia Pocket Book of Statistics, 2010-2013

In terms of breakdown of DEL household subscriptions, in 2012, 76.7% are located in urban areas, whilst 23.3% of the subscriptions are in rural areas.\(^{33}\)

TM is the largest provider of DELs and fixed telephony services in Malaysia. Maxis, TIME and DiGi also have DELs and provide fixed telephony services. TM has also been declared dominant in the provision of fixed telephony services.\(^{34}\)

All four service providers continued to use the NATESCA Plan to set their rates, and hence, their PSTN services (i.e. local calls, national calls, line rentals, connection and reconnection services) are based on the rates specified under the Rates Rules. Other service providers, such as Jaring and Packet One also refer to the NATESCA Plan in setting their rates. However, as mentioned in section 2.2.4 above, YTL regarded that the NATESCA Plan’s charging districts as obsolete in light of the migration to IP NGN.

### 3.3 Non-regulated packages and IP telephony services

In addition to the abovementioned PSTN services provided at regulated rates for local calls and national calls (for national calls, it is generally based on time of day the call is

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33 MCMC, Communications and Multimedia Pocket Book of Statistics, Quarter 4 2013.
made, duration of the call and the applicable distance) under Rates Rules, service providers also offer other cheaper packages to encourage higher usage and as a result of consumer preference or competition. Packet One also provided feedback that though it offers PSTN services based on the prices set under Rates Rules, the majority of its customers prefer flat rate charges. Maxis and TIME both submitted that they have lower rates for national calls as a result of competition.

These cheaper call packages generally are not based on distance, and is normally on a flat rate basis. For example, YTL charges a single rate of 9 sen/minute for both local and national calls, and their calls are based on duration of call regardless of the distance. Jaring also offers its IP customers call plans at a flat rate. For example, Jaring’s MY015 service specifies that there is no monthly fee, with fixed-line and mobile rates of 13 sen per minute to East Malaysia and 11 sen per minute within Peninsular Malaysia, as well as International Direct Dialling (“IDD”) rates.35

TM also offers 2 voice packages at RM48 and RM68 per month. Voice Deal 48 includes free line rental, free local and national calls to TM fixed line, 60 minutes of free minutes to mobile and other fixed line nationwide, after which a flat rate of 12 sen per minute for all types of calls is applicable. Voice Deal 68 has a similar offering as Voice Deal 48, except that there are 120 minutes of free minutes to mobile and other fixed line nationwide, after which a flat rate of 10 sen per minute is applicable.36

Voice calls are also normally a component of broadband packages. In addition to TM’s UniFi packages, other service providers such as TIME and Maxis also offer these packages.

TIME offers competitive flat rates for retail national and IDD calls as part of their broadband package. For example, TIME Voice Home Basic offers a flat rate of 9 sen per minute for fixed and mobile calls nationwide, whilst TIME Voice Home 10 Plan offers 2,000 free minutes for local calls, national calls and mobile calls to 60 selected countries and a flat rate of 9 sen per minute for fixed and mobile calls.37

3.4 Access deficit

One of the results of having a social policy, which is to ensure expansion of the PSTN network and to ensure that fixed-line telephony is affordable to consumers and businesses, even those in the rural areas, is the occurrence of access deficit. Access

deficit typically arises when the revenue from connections (both connections and reconnections) and line rentals is insufficient to meet the costs of providing the DEL. As mentioned earlier, in the past, the fixed-line provider would finance this through the higher prices of long-distance or national calls and international calls. However, with liberalisation and the entry of new entrants, it is not possible to sustain the higher prices for long-distance and international calls, as new entrants would seek to undercut the prices for these types of calls. This reduces the incentives for the incumbent to maintain lines in loss making areas and to undertake new investments, and may place its sustainability at risk.

In Malaysia, JTM introduced a Local Access Funding ("LAF") mechanism under Determination of Cost-Based Interconnect Prices and The Cost of Universal Service Obligation or TRD006/98 ("TRD006/98") to compensate the local access operators for the increased cost of universal service arising from the introduction of Equal Access. This mechanism was funded by the five Equal Access providers that originated the calls, and the local access network providing universal service, i.e. TM, received the LAF payment. The cost of LAF was determined at 10 sen per minute on all originating traffic minutes of Equal Access operators. This mechanism was in effect from 1999 to 2003, when TM was designated as the sole provider of universal service.

Subsequently, the MCMC carried out a public consultation to review the LAF mechanism.\(^{38}\) This has been prompted by the introduction of a new USP regime which replaces the previous universal service obligation on which LAF is based. Under the new USP regime, TM will no longer be able to claim any net universal service obligation cost on existing lines, and it effectively renders the LAF mechanism under TRD006/98 as obsolete. The LAF was revoked, and at that time, the MCMC considered whether in revoking the LAF, TM (being the only operator to receive revenue under the LAF) could face an access deficit in relation to existing lines.\(^{39}\) As there was insufficient data, hence, the MCMC concluded that the affected operators could submit evidence to support the claim of access deficit.\(^{40}\) There was no data received after the public consultation, and subsequently, the matter was discussed during the Public Inquiry on Access Pricing in 2005.\(^{41}\)


\(^{39}\) Local Access Funding was revoked by Commission Determination on the Mandatory Standard on Access Pricing, Determination No. 1 of 2003.


\(^{41}\) As the matter is considered as important, hence, the MCMC proposed to consult on access deficit separately.
3.4.1 International experiences on access deficit

Only several countries around the world have implemented access deficit and it was implemented as a short-term measure when competition was introduced, for example in the UK and Hong Kong. Many of these countries, such as the UK, Hong Kong, Australia and India implemented access deficit contribution ("ADC") through interconnection charges for an interim period.

Based on its experience in implementing access deficit, the UK had noted that due to the uncertainty in administration, the complexity and difficulty in quantifying the access deficit, it had hindered the establishment of a transparent and competitive interconnection system. Further, the UK and Australia commented that in applying the access deficit, it created a distortion to the market. In 1994, the UK had in place retail price controls with an overall cap of RPI-7.5%, RPI+0% sub-cap on individual prices and a sub-cap of RPI+2% on line rentals. The RPI+2% on line rental restricted the ability of BT to recover the costs of the access network through retail charges, and hence, there was a necessity for the ADCs to assist BT to recover the access deficit through interconnection. Office of Telecommunications ("Oftel") viewed that:

"Because RPI+2% has disturbed the relationship between retail prices and underlying costs, it also risks continuing distortion of competition by encouraging entry based on BT’s retail tariff. To continue with ADCs would institutionalise a significant distortion of the market."

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42 In 1991, when the UK government introduced competition into the telecommunications market, amongst others, it announced the establishment of an ADC system and increased the price cap from RPI-4.5% to RPI-6.25% with international prices added to the basket and cut by 10%. See Ofcom, “A brief history of recent UK telecoms and Oftel” <http://www.ofcom.org.uk/static/archive/oftel/about/history.htm>.


44 In 1992, the initial ADC and delivery fees that were to apply between Hong Kong Telecommunications International (HKTI) and the local fixed and mobile operators in Hong Kong was published. The ADC regime expired in 1996 and since then Hong Kong Telecommunications Ltd. is compensated by universal service contribution. See Office of the Telecommunications Authority of Hong Kong, Access Deficit Contribution: Statement, February 1996 <http://tel_archives.ofca.gov.hk/en/ta960216.html>.

45 India implemented ADC in 2003 and phased out its ADC regime by 2008 through the Telecommunication Interconnection Usage Charges (Ninth Amendment) Regulations, 2008 and since then Bharat Sanchar Nigam Ltd (BSNL) is compensated through the universal service obligation fund. See TRAI, TRAI Determines Final Phasing out of ADC, Information note to the Press (Press Release No. 29/2008).

Hence, Oftel removed the RPI+2% price control on line rental and along with it, abolished ADCs and also based interconnection charges on incremental costs that are more reflective of cost.\textsuperscript{47}

Similarly, in Australia, in 2003, the ACCC also took the view that the ADC that applied to the PSTN originating and terminating services is a significant distortion to competitive outcomes. Therefore, the ADC should be gradually reduced, and a pure TSLRIC-based PSTN conveyance cost (i.e. with no ADC) would be applied by the beginning of 2006-2007. Nevertheless, the ACCC also viewed that if this issue was considered at an aggregate PSTN level, there is a possibility that a deficit may not exist. Therefore, according to ACCC, even if there is a shortfall between the line costs and line revenues for PSTN services, this could be more than made up by revenue from other services that use the same elements of the fixed-line network.\textsuperscript{48}

\textbf{3.4.2 MCMC assessment}

As mentioned above, in Malaysia, when competition was introduced through the implementation of equal access service, the LAF was implemented from 1999 to 2003, and it was set at 10 sen per minute for all originating calls, in a manner that is similar to the ADC regimes implemented in other countries. Subsequently, claims that access deficit exist have been raised, however, to-date, the existence of access deficit has not been clearly established. The MCMC has also set the interconnection charges based on incremental costs, in line with international experience.\textsuperscript{49}

Several observations are made that though there has not been an access deficit mechanism set in place after 2003, there no longer appears to be a rationale to establish it due to a combination of the existence of other initiatives and market changes.

A key argument in support of access deficit is to ensure continuous investment incentives in the fixed network. Otherwise, as a result of regulated line rental and connection fee, the fixed network operator may not have the incentive to invest in fixed network. This argument may have had some merits in Malaysia if there wasn’t already a

\textsuperscript{47} \textit{Ibid.}, paragraphs 2.63, 3.25. Note that Oftel also introduced new safeguards for a certain group of residential customers (the bottom 20% by bill size) so that they would not be impacted by price increases.

\textsuperscript{48} ACCC, \textit{Final Determination for model price terms and conditions of the PSTN, ULLS and LCS services}, October 2003, p. 65, 106.

\textsuperscript{49} The MCMC has carried out reviews on access pricing since 2001. The latest review was carried out in 2012. The public inquiry papers and reports on the matter are located at <http://www.skmm.gov.my/Resources/Reports/Public-Inquiry-Report.aspx>.
mechanism in place under USP and the funding provided by the Government for deployment of HSBB network. Under the USP, service providers are required to contribute 6% of its weighted net revenue annually to the USP Fund. The weighted net revenue is derived by a formula of applying a weightage factor to the net revenue by service. However, for each of the regulated retail service, there is no weightage assigned. In other words, the service providers who are providing services for which retail rates are regulated do not need to include the revenue from those services in their contribution to the USP fund. The exemption includes profitable retail services such as long distance or national calls.

In addition, as part of the agreement between the Government and TM to deploy HSBB network in Malaysia, there is a contribution from the Government towards the cost of deployment. To date, the Government has contributed RM2.4 billion for TM to deploy phase 1 of HSBB network, and there will be further investment allocated for deployment of phase 2 of HSBB network to extend coverage to more rural towns.

The above two are examples of initiatives designed to incentivise fixed network operators such as TM to ensure that they will continue to invest in the fixed network. Therefore, the investment incentive argument does not provide an appropriate justification for access deficit.

Secondly, there are changes in the market that could potentially minimise the incidence of access deficit, if any. As such, it would render any access deficit mechanism unnecessary. And if access deficit is implemented, there could be the potential to distort the market, as seen in the UK and Australian experience. It was observed during the costing studies that there was an anomaly, which is that the wholesale cost of line rental is somewhat higher than the regulated retail rate of line rental, but the gap between the two has been narrowing over time, i.e. the wholesale cost has been declining. For example, in 2005, the annualised wholesale cost of TM’s network is about RM56 per month, as compared to the residential line rental charge of RM25 per month and business line rental of RM45 (in Peninsular Malaysia). In 2012, the MCMC conducted another review and found that the closest equivalent, which is wholesale line rental service, is costed at around RM36 in 2013 to around RM 34 in 2016. It is noted that the wholesale cost has dropped from the earlier level. This is probably due to the dynamics

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50 Communications and Multimedia (Universal Service Provision) Regulations 2002, regulations 27 and 28, Table B and Table C
51 At the time of writing, the agreement has not been concluded, and only the letter of award has been issued and accepted by TM. See for example, The Star, "Telekom Malaysia bags broadband projects worth RM3.4b", 25 February 2015 <http://www.thestar.com.my/Business/Business-News/2015/02/25/Telekom-Malaysia-bags-broadband-projects/?style=biz>.
in TM’s network, where the proportion of working copper lines to total installed lines increased (this is due to the total installed DEL lines decreasing as also observed from Figures 1 and 2) as there is a transition to fibre or HSBB network. It is expected that as TM continues to expand its fibre network including under phase 2, customers are likely to replace their existing PSTN services with HSBB services (or UniFi services), resulting in a decline of access deficit, if any.

Further, services provided using the PSTN are not stand-alone services, rather they are services that are complementary with other services to create valuable telecommunications products. As such, treating basic access deficit in isolation by assessing whether the direct revenue from that product cover its costs does not have any meaning from an economic perspective. For example, it does not make sense that “access” charges are recovered from line rental charges alone, as there is a complementary relationship between access and calls. As technology has also evolved, the DEL in the fixed network is used as an input to provide several other services including broadband services. As such, there is no reason why a service provider should expect to receive revenues on each individual input that exactly offset the input’s cost. As mentioned above, the ACCC also viewed that if the revenue that arises from other services that uses the fixed network elements are also considered, there is a possibility that access deficit would not exist.

Therefore, it is the MCMC’s preliminary view that a mechanism to address access deficit may not be warranted. Nevertheless, the MCMC affirms that it is in the interests of end users if the prices of services are more closely aligned to costs, and according to the data, there seems to be some anomaly between the regulated retail rates (in particular for line rentals) and its costs. Therefore, to continue to regulate the PSTN retail rates “as is” will continue to distort the market further. Whilst the option lies with the MCMC to review the retail rates of PSTN services to align them with cost, a better option is to grant the service providers, who are in a better position than the MCMC, greater tariff freedom to realign their pricing structure for PSTN services more closely towards costs. Hence, the MCMC proposes, with a similar rationale as the UK, to no longer regulate the retail rates of PSTN services.

55 Access line and local calls are considered to be in the same market, due to the exact same infrastructure that is used to supply the services. MCMC, Market Definition Analysis: Definition of Communications Market in Malaysia, 24 September 2014, p. 18.
The preliminary feedback from the consumer group indicated that the consumers would be left at the mercy of the service providers should the retail rates of PSTN services be removed. The MCMC understands this to mean that there is a fear that without price regulation imposed on the PSTN services, the prices would increase.

That is a valid concern. However, the MCMC views that even without price regulation imposed, it would not be in TM’s best commercial interests to raise line rental prices drastically, with the intense competition especially from mobile telephony. However, as price regulation for the other PSTN services, such as local calls and national calls, are also relaxed along with line rental services, it would provide TM with the flexibility to design innovative packages to encourage subscription and usage and to be able to recoup its cost. As mentioned earlier, TM currently provides packages such as Voice Deal 48 and 68 which already includes free line rental, as well as free local and national calls.

**Question 4**

Do you agree with the MCMC’s assessment that there is little rationale, if any, to implement a mechanism to address access deficit? If indeed there is access deficit, do you agree with the MCMC’s proposal to address the issue by relaxing retail rate regulation on PSTN services to allow the pricing structure to be more closely aligned to costs?

**3.5 Proposal on the way forward**

**3.5.1 Preliminary views received**

Service providers were requested to provide feedback on whether the MCMC should continue to regulate PSTN services, and their comments are summarised below.

Celcom proposed that PSTN rates should be deregulated. The Rates Rules, a form of tariff rebalancing, allows TM to recover its access deficit for universal service obligation to provide basic voice telephone services in unprofitable areas and to unprofitable low spending customers, emergency call services and public payphones in rural areas. Celcom viewed that the tariff balancing through the Rates Rules is no longer relevant as with the amendment of USP Regulations in 2002, TM is no longer the sole USP provider and the focus of USP has also changed from fixed telephony to broadband and public cellular services.
Jaring commented that as there is now competition in the PSTN market, retail prices should be determined by the market. In fact, some operators already set their prices which does not follow the MCMC’s regulated prices. The inter-carrier (wholesale) rates should continue to be regulated by the MCMC, but flat rates (rather than distance-based rates) are preferred.

Maxis commented that the retail rate for an effective local call is lower than the regulated wholesale rate for single tandem under the Mandatory Standard on Access Pricing. This meant that the operators are subsidising their subscribers for each local call made to other operators, and proposed a review of the retail rate for an effective local call to ensure that the costs are covered such that there is an incentive for operators to continue to invest.

As mentioned in section 2.2.4, Maxis viewed that price regulation of retail PSTN services should be imposed only on the incumbent. In Malaysia, rates for calls from PSTN to mobile are not regulated and despite the many reductions in interconnect termination rates to mobile, the retail rates remain the same. Maxis requested the MCMC to study the matter further to assess whether a lack of competition has resulted in this outcome.

Pernec Paypoint supported the continuation of retail rates regulation since the consumer benefits from the regulated tariff.

TM believed that there should not be any changes to current retail price regulation, and proposed that PSTN rates continue to be regulated as a basic telecommunications service. Radial distances between area or district charge points are considered appropriate. Even with the presence of Rates Rules, market forces have driven down the maximum price in Rates Rules. Given fixed-mobile substitution and the previous costing exercise which has shown the existence of access deficit, even if TM is allowed to increase the price of line rental to be based on cost under section 198 of CMA, it would still not allow TM to recover its cost and would result in higher customer churn. TM would like these issues to be addressed in the review of Rates Rules.

TIME believed that PSTN rates should not be regulated since the end users today are more dependent on mobile voice services. For example, based on an analysis of minutes of usage for 2013, it was observed that TIME’s fixed-line subscribers make 52% of their calls to mobile numbers. It believed that calls between mobile numbers account for the majority of call minutes made in the country. Hence, if the MCMC believes there is insufficient competition in the voice market to protect the interest of end users, the MCMC should regulate prices for mobile services instead of PSTN services. Further, PSTN service providers find it difficult to compete effectively with mobile service
providers since the Rates Rules limits their flexibility to offer innovative tariffs to their subscribers.

U Mobile supported the continual regulation of PSTN prices as the PSTN is considered sunk investment and there is less competition in the PSTN market, hence pricing should remain low.

YTL viewed that PSTN services should not continue to be regulated. Only around 10-20% of calls are made to the fixed-line, and with mobile subscription at more than 100%, almost every customer is using mobile services. With inflation, 4 sen per minute would mean that service operators would be subsidising local calls made by residential consumers. The business/enterprise segment can afford to pay greater than 4 sen per minute for local calls, and there is no valid reason for operators to subsidise them for their calls. Further, PSTN operators are no longer dominant in the voice market and have to compete with mobile operators and over-the-top applications that provide their service free of charge or at a nominal price. Hence, the market is competitive enough to ensure fair prices are available.

In addition, as mentioned in section 2.2.4, YTL viewed that with the migration to IP NGN, service providers are able to implement “one nation one rate” rendering NATESCA Plan’s charging districts as obsolete. Further, services and customer devices offered are no longer homogenous and therefore, are not amenable to standard rate rules. For example, the price of services and devices may vary according to data cap purchased, duration of contract and type of device provided with the service, and also the availability of smart plans with different combination of peak and off-peak data allocation. In addition, market competition should be allowed to dictate prices of retail services, including for PSTN retail services.

3.5.2 MCMC assessment

As noted earlier in Figures 1 and 2, there is a general trend of declining DEL connections. At the same time, there is an investment in fibre networks by TM as well as by the other operators, such as Maxis and TIME. This is consistent with the global trend, where PSTN operators are either in the process of migrating or have migrated to an IP-based network, recognising that the future of fixed services is in broadband services. At the same time, other providers such as YTL, Packet One and Jaring are also providing telephony services over an IP network.

Recognising that the reality is changing from narrowband PSTN to broadband network, from only voice telephony to where on the broadband platform, voice telephony is only
one service out of a multitude of services that can be offered to consumers, and where the essential service in the 21\textsuperscript{st} century for consumers is no longer PSTN services but broadband services, there is less of a need to continue regulating PSTN services. Furthermore, on an IP-based platform, distance-based charging for national calls (such as that specified under the Rates Rules) is no longer relevant. With the flat rate packages which are generally cheaper and more competitive available in the market, consumers can enjoy national calls at lower rates than those regulated under Rates Rules, and in some packages, free line rental is also included. As a result, it renders price controls less relevant.

Further, as highlighted in section 3.4.2 above, even though the existence of access deficit has not been clearly established, there is a weak relationship between the regulated rates of the PSTN services and the underlying costs to produce them. This seems to also be supported by the comment provided by Maxis that the regulated retail local call rate is actually lower than the applicable wholesale rate. As such, it is in the interest of the end users that the prices and costs are more closely aligned. Hence, to continue to regulate the PSTN prices “as is” would perpetuate the distortion to the market. As mentioned in section 3.4.2, the MCMC believes that service providers would be in a better position than the MCMC to realign the pricing structure towards the underlying costs.

The MCMC notes the comments from TM that it may not be able to recover its cost on line rental even if it is allowed to price the service at cost. As mentioned above in section 3.4.2, in aligning pricing structure to costs does not mean that all the access charges are to be recovered from line rental charges alone, due to the fact that PSTN services are not stand-alone services. There is a complementary relationship between access and calls, and with the greater tariffing freedom granted to TM in the removal of the retail rates for local calls and national calls, it would allow TM’s costs to be recovered. As Oftel has said “… what matters is that overall an operator covers its costs, not that it covers its “access” costs from line rental charges alone.”\textsuperscript{56}

The fixed-line market is also not as competitive as mobile market, whose retail rates are not regulated. Whilst price regulation of retail services may not be the only factor distinguishing between fixed-line and mobile markets, regulated PSTN rates did not ensure that the services could be available competitively. In no longer regulating the PSTN rates, it could level the playing field and may stimulate competition in the market.

Hence as the way forward, the MCMC proposes to remove the regulation for retail prices for PSTN services, however, would continue to regulate the services at the wholesale level. This would allow the operators to obtain the inputs required from other service providers at regulated terms and conditions, and provide PSTN services to consumers at market rate. The service providers continue to have the responsibility to set rates for the PSTN services based on section 198 of the CMA, such as oriented towards cost. The MCMC would continue to monitor to ensure that the service providers comply with the requirements of the CMA.

Furthermore, the MCMC has implemented accounting separation, and in monitoring the separate accounts, the MCMC would be able to identify the costs and revenue of the wholesale and retail services (regardless of whether they are under price controls) and as such, would be in a position to detect any incidences of price squeeze, predatory pricing or cross-subsidisation to protect the interests of the consumers.

In addition, in the event any service provider (regardless of whether or not they are in a dominant position) acts in a manner that constitutes an anti-competitive conduct under the CMA, then the relevant competition provisions can be used to remedy the situation.

3.6 MCMC’s preliminary view

Having considered the above, the MCMC is of the view that there is no longer a need to regulate the rates for PSTN services. The MCMC would continue to monitor the rates for PSTN services to ensure compliance with the CMA, and should any issue arise, the other provisions of the CMA would be used to address the issue(s).

Nevertheless, the MCMC is open to consider if there are groups of consumers who could be placed in a position of hardship or detriment by the decision to no longer price regulate the PSTN services. The MCMC does not have the data to justify intervention currently and would seek feedback from the public.

**Question 5**

(a) Do you agree with the MCMC’s preliminary view? Please state your reasons.

(b) Do you have any views on groups that would be disadvantaged from this proposal? Please clearly identify the group.
4 PAYPHONE SERVICES

4.1 Introduction

There are two options open to the user of a public payphone: the person can directly make the call or there is an option for the operator to make a national call or an international call on behalf of the user.

Under the Rates Rules, three different types of calls made from public payphones are regulated, which are local calls, national calls and national calls through operator assistance. Hence, the user who directly makes a call, will be charged the local call or national call charges. Local calls are charged at 10 sen for every 2 minutes. National calls are regulated based on distance, duration of call and time of day, and ranges from 10 sen per minute to 86 sen per minute, at the same rate as for the PSTN national calls.

Where the user opts for operator assistance, there is a one-off service charge for making a national call or international call, as well as the call charges for national calls from the public payphone. Operator assistance services are charged a service charge of RM1.50 for each national call and RM5 for each international call. The call charges for national call through operator assistance are based on distance and duration of call, ranging from 40 sen for 3 minutes to RM2.70 for 3 minutes.

4.2 Current status of payphones services

Based on Figure 3, it can be observed that the number of payphones deployed have decreased since 2010, and by 2013, there are only 22,000 payphones deployed. The breakdown of payphones in 2011 is 73.9% in urban areas and 26.1% in rural areas.57 Public payphone services are also provided in USP areas, provided by designated universal service providers such as TM and Maxis.

Based on the feedback provided by the service providers who provide public payphone services, there has been a decline in total call minutes over the 4 year period.58 One of the reasons (similar to the fixed-line services) is the result of the growth of cellular phones. Secondly, they also commented that the most frequently used payphones are

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57 See MCMC, Communications and Multimedia Pocket Book of Statistics, Quarter 4 2013.
58 One of the providers, Pernec Paypoint in recognising this challenge, has reinvented its business. Hence, apart from making calls, consumers can also access broadband services and reload their prepaid phone credit at its payphones, and it also offer advertising services to businesses. See The Malaysian Reserve, “Pernec Katchi to invest RM25m in City Mix payphones”, 5 July 2011 <http://themalaysianreserve.com/main/component/k2/item/455-pernec-katchi-to-invest-rm25m-in-city-mix-payphones> and <http://www.ictu.sarawak.gov.my/modules/web/pages.php?mod=news&sub=news_view&menu_id=0&sub_id=120&nid=41&m=4&y=2010> for further details.
located at boarding schools or residential schools, a lot of which are located in Kuala Lumpur and Selangor. Thirdly, of all the types of calls that can be made from public payphones (i.e. local calls, national calls and national calls through operator assistance), Maxis, Navitel, Pernec Paypoint and TM commented that national calls through operator assistance is the least used service. Fourthly, for the national calls made from public payphones, Maxis, TM and Pernec Paypoint charges their customers on duration and distance parameters, as specified under Rates Rules, however, Navitel only charges its customers based on duration of call.

**Figure 3: Number of payphones from 2009-2013**

![Figure 3: Number of payphones from 2009-2013](image)

*Source: MCMC, Communications and Multimedia Pocket Book of Statistics, 2010-2013*

It is observed that there is a decline in the usage of payphone services to make calls, as reflected in the declining number of payphones. In fact, one provider has indicated that its payphones are being used to generate other revenue in order to complement the revenue received from telephony services. Apart from students, foreign workers and villagers are possible groups who rely on public payphones to make calls. Based on the data of the distribution of payphones where more than 70% are in urban areas, it is envisaged that students in the urban areas could be the most affected group.

### 4.3 Preliminary views received

As mentioned in section 2.2.4, Celcom viewed that public payphone service is declining in popularity due to the pervasiveness of mobile telephony services, compounded by the low rates in the Rates Rules and vandalism. Hence, public payphone service should be

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59 This refers to all public payphones including coin, card-operated or a combination payphones. The data collected also does not distinguish between operational and non-operational payphones.

deregulated to allow the service providers to adjust their commercial offerings. In case there is any concern of any indiscriminate increase in prices for public payphone service, Celcom viewed that the ubiquity of mobile telephony services would act as a countervailing effect.

On the other hand, the preliminary feedback from consumer group is that even with the pervasiveness of mobile telephony, public payphone service has a role to play especially during an emergency. Hence, accordingly, consumers who cannot afford the mobile phone are the ones who could be most affected in the event that the rate for public payphone service is not regulated.

**Question 6**
Do you have any views on groups that would be disadvantaged if the retail rate of public payphone services are no longer regulated? Please provide justification for your view.

**4.4 MCMC’s preliminary view**

The MCMC has considered that there is currently a decline in the usage of payphone services generally, and foresees that going forward, with the continued increase in mobile telephony, there would continue to be a decline. As such, the MCMC considers that there is little merit in continuing to regulate the rates for local calls, national calls and national calls through operator assistance made from a payphone through the Rates Rules. What this means is that, the MCMC proposes to allow the providers to set rates in accordance with the principles of rate setting under section 198 of the CMA, such as fair, non-discriminatory and oriented towards cost.

Nevertheless, the MCMC would continue to monitor the rates for public payphone services to ensure compliance with the CMA, and should any issue arise, other provisions under the CMA could be used to address the situation.

**Question 7**
Do you agree with the MCMC’s preliminary view? Please state your reasons.
5 REQUIRED APPLICATIONS SERVICES

5.1 Introduction

Required applications services ("RAS") are not new in Malaysia, as the fixed and cellular operators who were licensed under the previous Telecommunications Act 1950 were required under their licence condition to provide emergency services, directory information services and operator assistance services.61

Currently, under sections 192 to 194 of the CMA, the Minister is empowered to determine a list of RAS, the classes of licensees who are required to provide the RAS and the operational details. To date, the Minister has determined four RAS: emergency services, directory assistance services, operator assistance services and public cellular blocking service for lost and stolen cellular mobile access device of end users.62 The Minister has also determined that RAS is required to be provided by those licensees who provide PSTN, public cellular services and/or public payphone services.63

The rates of three RAS are regulated under Rates Rules: emergency services, directory assistance services and operator assistance services. This will be discussed in the following sections.

5.2 Emergency services

Emergency services allow each end user or caller to contact the police, ambulance, fire services and civil defence.64 Currently, under the Rates Rules, this service is provided at no charge to the end user.

Emergency services are provided by all service providers to their subscribers. As this is an essential service that is required by all subscribers, there would be no change for this service – emergency services would continue to be regulated at no charge.

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62 Ministerial Determination on the List of Required Applications Services, Determination No. 1 of 2004 and Ministerial Determination on the List of Required Applications Services, Determination No. 1 of 2010.
63 Ministerial Determination on Required Applications Services, Determination No. 2 of 2005.
64 Emergency services are defined under Variation to the Ministerial Determination on the List of Required Applications Services (Determination No. 1 of 2004), Determination No. 2 of 2010 and Rates Rules.
5.3 Operator assistance services

Operator assistance service that is classified as RAS is operator assistance for call connection difficulty and assistance in the Ministerial Determination on the List of Required Applications Services, Determination No. 1 of 2004.

Whilst there could be many types of services that a consumer, by dialling a code or number, would be able to reach and obtain the assistance of an operator, it is only the operator assistance in making a national or international call that is covered under Rates Rules.65

The Rates Rules currently regulates the one-off service charge for making a national call and international call, as well as the rates for national calls from a fixed line (and public payphone). There is a service charge of RM1.50 for each national call and RM5 for each international call. The call charges for national calls through operator assistance are based on distance and duration of call, ranging from 35 sen to RM2.70 for 3 minutes. Similarly, call charges for national calls through operator assistance made from public payphones range from 40 sen to RM2.70 for 3 minutes. The charges applicable to public payphones have also been discussed in the previous Chapter.

An example of operator assistance service is TM’s ‘101’ service, where a consumer who dials ‘101’ would be able to request the assistance of the operator to make a national call or international call.66

Consistent with the feedback provided for payphone services, operator assistance service is becoming less important, with the volume of calls declining from 1.2 million calls in 2011 to 0.7 million calls in 2013. This is a clear indication that consumers prefer to directly dial a number as compared to relying on an operator for assistance to call on their behalf. This tendency of consumers to directly make calls is also expected to grow with the pervasiveness of affordable handset devices and attractive and competitive rates offered for national and international calls.

Operator assistance service in making national or international calls are also not provided by many operators, apart from TM, who have provided feedback that the customers prefer direct dialling. Pernec Paypoint commented that operator assistance service calls are not available through its payphones due to security and fraud issues. Further, as stated under section 2.2.4, Celcom viewed that operator assistance service is

65 Rule 2 defines operator assistance as assistance in making a call either through an operator or through automated means.
no longer available and that consumers use a direct dialling method, rather than to rely on operator assistance. As such, it is no longer relevant to continue to regulate retail rates for operator assistance service (in making a call) as defined under Rates Rules.

The preliminary view of the consumer group is that even though it agreed that operator assistance service is not being used, nevertheless, it is better to continue to regulate the rate of operator assistance service.

5.4 Directory assistance services

Generally, there are three ways that directory services may be provided. Firstly, there is the paper directory, where a listing of telephone numbers is published such as in white pages or yellow pages and the user can manually search for the information that they are interested in. Secondly, there is voice directory service or directory assistance service, whereby a user calls in order to enquire information about a telephone number. Finally, there is the online directory services, whereby users submit their enquiry to a website and receive the information in return.67

As mentioned above, the paper directory and directory assistance service has been available since the days of the Telecommunications Act 1950. In those days, charges and fees, and the list of telephone subscribers are published in the directory.68

These days, TM Info-Media Sdn. Bhd. publishes Yellow Pages and E-Yellow Pages directory services.69 TM makes directory assistance services accessible through the dialling of ‘103’ and allows callers to inquire on business and residential telephone numbers on TM, Binasat Sdn. Bhd. and Time Telekom’s networks.70 The other service providers provide TM’s directory assistance ‘103’ service to their subscribers by having a wholesale arrangement with TM and acquiring the service at a commercially negotiated rate of 95 sen per call.71

In addition, in March 2014, Maxis launched an online directory service, FINDIT in partnership with FINDIT Malaysia, which is the largest digital directory service in Malaysia. FINDIT may be used by subscribers on any mobile network, and for Maxis customers, there are no charges applicable. FINDIT provides a listing of more than

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67 For more information, please see MCMC, Market Definition Analysis: Definition of Communications Markets in Malaysia, 24 September 2014, p. 75.
68 See Telephone Regulations 1956, regulation 3.
69 MCMC, op. cit., p. 75.
71 This has also been highlighted during the Public Inquiry on Dominance. See for example, MCMC, Public Inquiry Report: Assessment of Dominance in Communications Market, 24 September 2014, p. 88.
175,000 businesses in 2,500 categories along with a location-based service to assist customers to find the product or service nearest to their location.\textsuperscript{72}

Only directory assistance service which allows end users to obtain information on subscribers for the purpose of making the call to the subscriber is listed as a RAS.\textsuperscript{73} Under the Rates Rules, each directory assistance service call/inquiry made from a fixed device or public payphone is charged 30 sen.

With the pervasiveness of mobile telephony and the availability of handsets that have the capability and capacity to store telephone numbers of family, friends, business/professional contacts or even favourite restaurants or frequented businesses, this should reduce the tendency and frequency to seek for information.\textsuperscript{74} In addition, there are also more options open to consumers to search for information such as telephone numbers, and normally there are no charges or fees applicable, for example users can either go online to search for the telephone number through E-Yellow Pages, FINDIT or other websites. Hence, with this development, it is not surprising that the trend in usage of directory assistance services has been declining, with the number of enquiries reducing from 14.1 million in 2011 to 9.2 million in 2013. It is also not surprising to note that a majority of the directory assistance calls, about 61\%, are made from cellular phones.

\begin{center}
\textbf{Question 8}
\end{center}

Do consumers still regard directory assistance services as an important way to obtain fixed-line telephone numbers of businesses or residential customers? Please provide justification for your view.

\textbf{5.4.1 MCMC assessment}

Notwithstanding the declining rate, directory assistance service is a RAS and subscribers should be able to make the call whether they are calling from a fixed-line, cellular or public payphone. As mentioned above, the Rates Rules provides for the applicable rate only for directory assistance calls from fixed-line and public payphone, giving the cellular operators freedom to charge for the service. The MCMC understands that the rate

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{72}] MCMC, \textit{op. cit.}, p. 75.
\item[\textsuperscript{73}] Directory assistance service is defined in Ministerial Determination on the List of Required Applications Services, Determination No. 1 of 2004.
\item[\textsuperscript{74}] Mobile penetration rate as at Quarter 3 of 2014 is at 145\%.
\end{itemize}
\end{footnotesize}
generally charged to consumers is about RM2 per enquiry if it is made from a cellular phone.\textsuperscript{75}

Secondly, it is our understanding that service providers acquire TM’s directory assistance ‘103’ service through a wholesale arrangement at a commercially negotiated rate of 95 sen per call. This arrangement is not unique to Malaysia, as there are similar arrangements in other countries such as the UK, for example. In the UK, providers acquire access to a database containing telephone directory information on terms set out in licence arrangements with BT.\textsuperscript{76} However, what is unique is that in Malaysia, there is a retail rate specified for directory assistance calls made from fixed-line and public payphone. What this means is that it would place the fixed-line providers and public payphone providers at a disadvantage vis-à-vis the mobile operators.

In considering the above anomaly, the MCMC considers that there are a few options that can be considered:

\textit{Option 1: Retain the status quo – No change required to Rates Rules}

Under this option, the current practice under the Rates Rules continues, where the rates for directory assistance service calls from fixed-line and payphones are regulated. However, the rates for directory assistance service calls from cellular phones must be set in accordance to rate setting principles under section 198 of CMA, and failure to comply could entail enforcement action.

\textit{Option 2: Not to regulate the retail rates for Directory assistance service}

In this case, the retail rates for directory assistance service whether it is made from a fixed-line, public payphone or cellular phone would not be regulated. However, the service providers who provide this service at market rates, must ensure that the rates are set in accordance to rate setting principles under section 198 of CMA, and failure to comply could entail enforcement action.

This option takes into account that there is a declining trend in the usage of directory assistance services as well as the availability of other free of charge options to consumers. Secondly, it balances the interests of both consumers and service providers, in that the consumers continue to have the choice to make directory assistance calls, if

\textsuperscript{75} See <https://www.tm.com.my/OnlineHelp/CustomerSupport/Pages/ServiceCenter.aspx>.

\textsuperscript{76} Ofcom, \textit{Telephone directory information obligations and regulations: Consultation on a proposal to remove and/or amend universal service obligations and general conditions relating to the provision of telephone directory information}, p. 5.
they so wish. But at the same time, recognising that there are grounds of commercial viability, it allows the service providers who are required to provide this service to its subscribers to charge at a cost-oriented price for the service. There are several service providers who currently provide this service, and there are currently no competition-related issues in this market.\textsuperscript{77} However, the MCMC continues to have an active role to monitor the situation, and could intervene, if the need arises. Thirdly, it is technology neutral, as it subjects all service providers who provide the same service, without unduly discriminating one platform to the detriment of another, to the same requirement.

This is somewhat similar to the practice in the UK and Singapore. In the UK, directory enquiry services are provided by the market and service providers are allowed to price them commercially.\textsuperscript{78} Where there are disputes, Ofcom will intervene, and in this case, Ofcom has resolved two separate pricing disputes between BT and Number (UK) Limited and between BT and Conduit Enterprises Ltd. In light of the disputes, thereafter, Ofcom conducted a consultation to seek feedback, amongst others, on whether there is need to impose any additional requirements on wholesale provisioning of directory information, and Ofcom seems more inclined to leave it to the market forces.\textsuperscript{79}

In Singapore, only fixed-line telephone operators are obliged to provide directory enquiry service to its customers and they are allowed to charge for the service.\textsuperscript{80} However, whilst the mobile operators are not obligated by IDA to provide directory enquiry services, they choose to provide the services to fixed-line numbers on a commercial basis.\textsuperscript{81} In 2012, IDA conducted a consultation on the relevance of regulatory requirement for directory services in Singapore, and based on the mixed feedback received, IDA decided to retain the regulatory requirement for the provision of published directories for business listings and to retain the regulatory requirement for directory enquiry services for both residential and business listings.\textsuperscript{82}

\textsuperscript{78} For more details, see the consumer research conducted by Ofcom. Ofcom/ICSTIS, \textit{Evaluation of Directory Enquiry Services}, 29 March 2006.
\textsuperscript{79} Ofcom, \textit{Telephone directory information obligations and regulations : Consultation on a proposal to remove and/or amend universal service obligations and general conditions relating to the provision of telephone directory information}, pp. 46-47.
\textsuperscript{80} However, charges for directory enquiry services by dominant licensees continue to be regulated by IDA. See IDA, \textit{Review of IDA’s Regulatory Requirement for Directory Services, 18 October 2012}, p. 7.
\textsuperscript{81} \textit{Ibid.}, pp. 1-2.
\textsuperscript{82} IDA, \textit{IDA’s Decision on the Review of IDA’s Regulatory Requirement for Directory Services, 17 December 2013}. As the regulatory requirement for the provision of published directories for residential listings was removed, IDA has required that the fixed-line operators offer 3 free directory enquiries per month to each of their subscribers, after which the operators can charge for the services.
Option 3: To regulate the retail rates for Directory assistance service for all platforms

In this case, the retail rates for directory assistance service whether it is made from a fixed-line, public payphone or cellular phone would be regulated, at no charge. This option is based on the principle that the costs for providing RAS should be borne by service providers.\(^{83}\) It also respects technology neutrality, as it subjects all service providers who provide the same service, without unduly discriminating one platform to the detriment of another, to the same requirement. Further, this option provides certainty to consumers, and since it is set at no charge, it would encourage the usage of directory assistance service.

In Hong Kong and in Australia, directory enquiry services are provided to their consumers at no charge.\(^ {84,85}\)

However, the MCMC is inclined to view that with the availability of free of charge options to consumers as well as the capacity of handsets to store a large number of telephone numbers, the declining trend in the usage of directory assistance services would continue and consumers would only choose to use the service under limited circumstances. Under such circumstances, the MCMC is inclined to view Option 2 as most viable.

The preliminary view received from consumer group is that it is preferable for the retail rate of directory assistance service to be regulated.

**Question 9**

Do you agree with the MCMC’s preliminary view that there is no need to regulate the rates for directory assistance service? Or do you think that there are other options that should be considered? Please state your reasons.

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84 Fixed line operators are required by virtue of their licence conditions to provide to their subscribers free of charge. However, there is a monthly cap of 50 free calls, and beyond the cap, the calls are chargeable. See OFTA, Statement of the Telecommunications Authority: Directory Services, 4 August 2010, pp. 1 and 21.

85 Telstra is required to provide free directory assistance services to its subscribers, and it is also proposed that the free service be provided consistently on copper and NBN platforms. See Department of Broadband, Communications and the Digital Economy, Retail Price Controls Review Report, p. 21.
5.5 MCMC’s preliminary view

Emergency service is regarded as critical to each subscriber, and as such, the service would continue to be regulated at no charge.

Operator assistance service in making calls are less important with customers preferring to directly dial the number on their own. Operator assistance service would continue to be provided as RAS, however, the rate for the operator assistance service in making calls (as defined under Rates Rules) would no longer be regulated.

Directory assistance service would also continue to be provided as RAS. However, as the usage of directory assistance service would likely to continue to decline in importance, the rate of this service would also not be regulated.

**Question 10**

Do you agree with the MCMC’s preliminary view? Please state your reasons.
6  INTERNET ACCESS SERVICES

6.1  Introduction

Internet access service refers to the ability to access Internet through a PSTN dial-up connection using short codes such as 1511, 1512, 1515, 1516, 1517 and 1519. Currently, of the six providers assigned short codes, only DiGi, Jaring and TM continue to provide dial-up Internet services to residential and business customers.

The Rates Rules regulate the rate of the Internet access service or Internet dial-up service at 2.5 sen per minute (made up of 1.5 sen per minute communication charge and 1 sen per minute access charge) for residential customers and 4 sen per minute (1.5 sen per minute communication charge and 2.5 sen per minute access charge) for business customers.

6.2  Current status of Internet access service

As mentioned in Chapter 2, Internet dial-up services were provided in Malaysia from 1987 onwards. By 2000, there were five ISPs who provided this service. However, today, Internet dial-up is only offered by three service providers, namely, TM, Jaring and DiGi. As mentioned in section 2.2.4, Celcom is of the view that Internet access service through PSTN dial-up is no longer available, as consumers are now connected to the Internet via broadband service. The number of subscribers has declined by 32% from 2011 to 2013. In 2013, there are 170,552 subscribers, of which 83% are residential and the remaining 17% are business subscribers.

Based on the data provided by the three service providers, most of their subscribers are located in the state of Selangor.

Currently, TM offers two plans for personal, students and the disabled. Both plans are similar. The first plan basically offers 1515 services at RM10 per month, which includes 1200 minutes of Internet access, subscription to Virus shield anti-spamming, 60 minutes of Streamyx Hotspot, and additional Internet access minutes are charged at the regulated rates. The second plan is similar, except that it includes a X-blocker (anti-pornographic dialler) and only 1000 minutes of Internet access are included in the plan. The plans for schools and organisations follow the regulated rates. In all of TM’s

86 Though rule 9 in the Rates Rules provides this list of short codes, some of these short codes are no longer being used for the purposes of providing Internet access service.
packages, there are annual subscription fees applicable, in addition to the one-time registration fee.87

Jaring offers its dial-up service at RM5 per month (inclusive of 600 PSTN minutes) and dial-up usage charges at 1.5 sen/minute via 1511.88 Jaring has stated on its website that it is no longer accepting new registration for dial-up services, which means that Jaring is only maintaining the service for its existing customers.

Considering the packages available, TM has identified Internet dial-up users to be light users and includes students and the disabled, whilst Jaring views that the profile of dial-up subscribers are light users, those who are price sensitive or where broadband coverage is not available in their area.

Whilst it is noted that there is a pocket of users still on Internet dial-up services, the future direction is in broadband services. In terms of encouraging the Internet dial-up customer to upgrade to broadband, price is most certainly an important criterion. The lowest Streamyx package offered by TM is at RM88 (without a modem) per month for 1 Mbps or Streamyx wireless package at RM77 per month (not including the one-time modem installation fee, activation fee and other charges).89 Jaring’s other broadband packages include its basic promo for 1 Mbps at RM69 per month for 12 months contract (and RM79 per month thereafter) or Flite WiFi Spot package of up to 384 Kbps at RM5 for 1-day access or RM20 for 30-days access or RM50 for 90-days access.90

It appears that Jaring have tailored some packages that might be suited for the profile of light users or price-sensitive customers, and with the right packages, it is possible that these users can be encouraged to upgrade from Internet dial-up service.

However, apart from these packages, there are also a multitude of mobile broadband packages, specifically with the deployment of LTE. Within the price range below RM30 per month, there are at least 14 standard packages currently available, and this does not take into account the promotional packages offered by the service providers from time to time. These packages are compiled under Annexure 2. The cheapest package observed is YTL’s Valuepack10 at RM10 per month, with a data quota of 0.4GB, which requires a device. Other data only plans for handsets include Maxis 100MB monthly pass at RM18 per month, Maxis 200MB monthly pass at RM28 per month, Xpax Internet Plan

at RM28 per month and Altel Mobile Broadband Plan at RM28 per month. Apart from that, most of the other packages are broadband bundled with voice and/or SMS. The advantage of a bundled package is that it could be economical for even a light user, as it would take into consideration the user’s telecommunications needs in totality, and not just his or her broadband needs. U Mobile’s Unlimited mobile Internet (UMI) 18 plan is at RM18 per month with data quota of 20MB and comes with 25 minutes and 25 SMS free of charge; and YTL’s Valuepack 25 at RM25 per month offers data quota of 1GB, with free 100 minutes for on-net calls and 300 on-net SMS.

In addition, there are also prepaid starter packs available. For example, Hotlink Broadband SIM Pack is available at RM5, and the consumer could purchase broadband top-up based on his or her own demand, such as, RM3 for 200MB for 1 day or RM5 for 600MB for 1 day. Other prepaid starter packs are also bundled with voice and/or SMS, such as DiGi Best Prepaid Starter Pack at RM10.80, and the consumer also has the flexibility and option of topping up the value thereafter based on needs and requirements, such as RM5 for 5 days, RM10 for 10 days or RM30 for 30 days. Some of these prepaid starter packs could be suitable for the budget of the light users.

The nationwide household broadband coverage as at Quarter 3 of 2014 is at 67.8% and with the new deployment of LTE by operators, it is highly likely that at least one broadband service provider would be covering the areas that currently only have Internet dial-up services. And with the intense competition in mobile broadband, the prices and packages offered could be more appealing, enticing the light users to migrate to broadband services.

6.3 MCMC’s preliminary view

It is noted that there are currently some subscribers who are still using Internet dial-up services, though the number is decreasing. With the availability of broadband packages (especially mobile broadband packages) and the continual expansion of the network, it would mean that current users of Internet dial-up service, including light users may have a greater incentive to migrate to broadband services (or bundled packages which includes broadband) that offers them greater value for their money.

With the fact that only three service providers are providing Internet dial-up service (of which, Jaring is also no longer expanding the service), the decrease of the subscribers from year to year, an increasing emphasis on encouraging higher speed broadband services (such as through HSBB and LTE) and the availability of broadband packages to suit the budget of light users, it does not make sense to continue to regulate retail rates for Internet dial-up service or Internet access service that is at its sunset stage.
The preliminary feedback from consumer group is that it is better to continue to regulate the service as it provides additional options to the consumers.

Nevertheless, even if the retail rates for the Internet dial-up service are removed, the MCMC does not believe that the price of Internet dial-up service would increase, due to competitive pressure from mobile broadband services. In fact, it is to the benefit of service providers to have the flexibility to set the tariffs in response to competition, so long as the rates that they set comply with the principles on rate setting under section 198 of the CMA, such as being oriented towards costs. The MCMC would continue to monitor the rates and if the need arises, other provisions under the CMA could be used to address the situation.

**Question 11**

Do you agree with the MCMC’s preliminary view? Please state your reasons.
7 AUDIOTEXT HOSTING SERVICES

7.1 Introduction

Under the Rates Rules, audiotext hosting service is defined to mean an applications service which enables a caller, by dialling a ‘600’ short code or such other codes or numbers as decided by the Commission, to receive a recorded message or interact with a programme for the purposes of receiving information. Audiotext hosting services are charged according to specified band ranging from 13 sen per minute to RM3.90 per minute.

7.2 Current status of audiotext hosting service

Under JTM, 19 operators were licensed to provide value added service (premium rate) – 600 service. Subsequently, from 2000 onwards, some of these operators migrated and registered for an Applications Service Provider class licence (“ASP(C)”) licence to offer audiotext hosting service under the CMA. There were many licensees who offered the service, for example in 2001, out of 81 ASP(C) licensees, 22 of them offered audiotext hosting service, but the number of ASP(C) licence holders offering the service has slowly dwindled over the years. As at 2014, out of 503 ASP(C) licence holders, only 2 are providing the service. As mentioned in section 2.2.4, Celcom viewed that audiotext hosting service is no longer available, as the Internet has served as an alternative source for information, which is more attractive than through the dialling of numbers.

TM offers its Premium Rate Service which allows callers to obtain information via telephone at a flat rate. Currently, TM has two subscribers or service providers providing this service, and the rates that TM charges its service providers are as specified under the Rates Rules. TM has provided in its feedback that there were 272,528 calls for the two service providers for the service in 2013.

One of the two service providers is TeleSPA which allows a student to call to verify if they have been accepted into a university. The other service provider is Asian Contact Centre which hosts and manages the service for AirAsia in order to allow any person to call in and make a reservation. Asian Contact Centre has commented that 4 years ago, there were 400,000 calls made, however, it has decreased to 250,000 in 2013.

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91 See rule 2.
95 See <https://www.tm.com.my/home/voice/vas/Pages/General.aspx> for further information.
As compared to previous years, there is a major decline in the number of licensees providing audiotext hosting services. Further, even under TM’s Premium Rate Service, there is a general decline in the number of calls made to audiotext hosting service over the years for the main service provider of TM, i.e. Asian Contact Centre, and it is likely to continue to decline. This is highly likely as AirAsia has other platforms for its customers to make their reservation, namely over the counter and via the Internet.

It appears that the audiotext hosting service is no longer considered as important by consumers. Hence, it is proposed that the retail rates for audiotext hosting services no longer be regulated.

The preliminary feedback from consumer group is that even though the premium service is no longer important, it is better if the rates continue to be regulated.

The MCMC views that even if audiotext hosting service rates are no longer regulated under Rates Rules, the impact to the existing consumers who are relying on the service would not be great. There are other platforms that consumers can use. In addition, the audiotext hosting services can continue to be provided by service providers, if there is commercial viability, and they can charge the services based on market rates, so long as the rates comply with the rate setting principles under section 198 of the CMA, including being oriented towards costs.

7.3 MCMC’s preliminary view

It is proposed that the retail rates for audiotext hosting services no longer be regulated. The MCMC views that even if audiotext hosting service rates are no longer regulated under Rates Rules, the impact to the existing consumers who are relying on the service would not be great, as there are other platforms that consumers can use.

Audiotext hosting services can continue to be provided by service providers, and they can charge the services based on market rates, so long as the rates comply with the rate setting principles under section 198 of the CMA, including being oriented towards costs. As with other retail services, the MCMC would monitor to ensure that the rates set by the service providers comply with the CMA, and should any issue arise, other provisions under the CMA could be used to address the situation.

Question 12
Do you agree with the MCMC’s preliminary view? Please state your reasons.
PART C: NEW SERVICES

8  BROADBAND SERVICES

8.1  Introduction

As mentioned throughout this PC Paper, the future lies with broadband services.

Broadband services contribute to the growth of the nation and are one of the key enablers for a knowledge-based economy. This fact is acknowledged at the international platform, as well as by national governments. The Broadband Commission for Digital Development (“BCDD”) was jointly established by International Telecommunication Union (“ITU”) and United Nations Educational, Scientific and Cultural Organisation (“UNESCO”) in May 2010 to boost the importance of broadband in the international agenda. Broadband access in countries is believed to be the key towards accelerating their progress in achieving the Millennium Development Goals (“MDGs”) by 2015. Broadband has a role to play towards eradicating poverty, enhancing education, promoting the empowerment of women, promoting child and maternal health, improving healthcare, ensuring environmental sustainability and empowering partnerships for development. As such, BCDD has set four new broadband targets for 2015 on making broadband policy universal, making broadband affordable, connecting homes to broadband and getting people online.\(^{96}\)

In Malaysia, the Government has developed various initiatives, such as the abovementioned NBI, the arrangement with TM to deploy HSBB phase 1 and phase 2, the deployment of fibre backhaul in Sabah and Sarawak under the 10\(^{th}\) Malaysia Plan, as well as the various initiatives under USP, such as 1Malaysia wireless villages, 1Malaysia Internet centres, community broadband centres, community broadband libraries and telecommunications towers to increase broadband and cellular penetration in the country, both cities and rural areas.\(^{97}\) Incidentally, BCDD’s target 1 is for countries to have a National Broadband Plan, and for broadband to be included in the universal service definition. Malaysia has long achieved target 1.

The aforesaid initiatives work hand-in-hand with regulatory initiatives under the CMA. For example, the licensing policy under CMA enables market entry, and as an example, in 2013 alone, there are 13 new service providers licensed to deploy infrastructure for


\(^{97}\) MCMC, Annual Report 2012, p. 33.
broadband services.98 Secondly, the spectrum policy enables spectrum frequency bands to be made available or reused to provide broadband services, such as through 2.5G (GPRS or EDGE), 3G, WiMAX and LTE technologies. Thirdly, the MCMC has also ensured that there is quality of service for broadband service to protect the consumer interest.99 Finally, the MCMC has also actively regulated wholesale broadband services to ensure that they are provided on equitable and non-discriminatory terms and conditions to other service providers, in order to stimulate competition in the retail broadband market.100 As such, the broadband market in Malaysia is relatively vibrant and competitive.

8.2 Current status of broadband service

Broadband services were introduced at the end of 2002, and at that time, it was mostly fixed broadband services through DSL technology, of which ADSL was particularly popular. From the modest broadband penetration of 0.08% in 2002101, there has been a strategic focus to increase broadband penetration rate that it has now increased to 24.9%, with broadband per 100 households at 67.8% (as at Quarter 3 of 2014). Target 3 of BCDD is for 40% of households in developing countries to have Internet access by 2015, and this target has been achieved by Malaysia.

Later, mobile broadband started to be made available and with its exponential growth, it is by far the most popular form of broadband by subscription at 3.3 million subscriptions. For example, from 2006 to 2013, 3G subscriptions grew by 42 times, as compared to cellular mobile subscriptions which only grew by 2.2 times during the same period.102

Subsequently, with the deployment of fibre, HSBB services were available to consumers from 2010. As at 2013, there are 668,000 HSBB subscriptions.103

99 For example, Commission Determination on the Mandatory Standards for Quality of Service (Broadband Access Service), Determination No. 1 of 2007 which came into effect on 1 January 2008 requires fixed broadband access providers to comply with customer-related matters (installation time, billing, service restoration time, consumer complaints) and network performance parameters.
100 Currently, 7 wholesale services related to broadband are regulated on the Access List, namely, Full Access Service, Line Sharing Service, Bitstream Services, Sub-loop Service, Digital Subscriber Line Resale Service, HSBB Network Service with QoS and HSBB Network Service without QoS. Other wholesale services such as Infrastructure Sharing, Transmission Service and Domestic Connectivity to International Services are also relevant to the provision of retail broadband services.
8.3 Affordability of broadband

In ensuring that broadband services are accessible to the population, the consideration of whether it is affordable becomes important. Both affordability and accessibility of broadband services is closely related to the pricing of those services, and hence this section considers this aspect comprehensively.

The Affordability Report 2013 indicated that out of 46 emerging and developing countries, Malaysia topped the list in both communications infrastructure and access and affordability sub-indices. The communications infrastructure sub-index measures the infrastructure in place as well as the policies and regulatory framework to promote investment, whilst the access and affordability index measures prices and adoption of broadband services and the policies in place to promote access and reduce cost of service. The Report highlighted the success of Malaysia in broadening 3G coverage and the deployment of broadband through public-private partnerships ("PPP"), and enabling accessibility through subsidized training, providing equipment to low-income communities via USP funding. At the end of the report, recommendations were provided to different stakeholders to improve infrastructure, access and affordability on 3 specific areas: to expand broadband infrastructure through the implementation of innovative open access and PPP projects; to reduce the price of broadband and to close the access gap; and to support development of National Broadband Plans. On considering its recommendations to policymakers and regulators, it is noted that the MCMC has implemented many of the recommendations such as implementing technology neutral licences, increasing demand of services, the use of USP fund to support rural infrastructure development, availability of spectrum and facilitating sharing of passive infrastructure. What this clearly reaffirms to the MCMC is the need to consider the roles of other stakeholders (such as private sector, civil society organisations, foundations and academia) and the diverse range of initiatives and measures that should be considered in addressing the issue and ensuring availability and affordability of broadband services to the population.104

8.3.1 Global broadband prices

BCDD’s target 2 is on affordable broadband and specifies that entry-level broadband services should be made affordable in developing countries through adequate regulation and market forces (amounting to less than 5% of average monthly income) by 2015.

ITU has been collecting ICT data since 2008 to measure affordability of ICT services, which includes fixed broadband prices from 2008 to 2013. It was observed that entry-level fixed broadband services are much more affordable today, as fixed broadband prices against Gross National Income (“GNI”) per capita dropped drastically from 94.5% in 2008 to 18.3% in 2013.\textsuperscript{105} The prices are expressed relative to the GNI per capita, which shows the affordability of the service; hence, the lower the percentage, the lower the relative cost of the service.

Likewise, ITU also included mobile broadband prices in its study in 2012 and 2013. Due to the diversity of the packages available globally, there were four categories of mobile broadband analysed: 500MB handset-based plans (prepaid and postpaid) and 1GB computer-based plan (prepaid and postpaid). In general, there was a decline in mobile prices as a percentage of GNI per capita, with the sharpest decline for both prepaid and postpaid for 1GB computer-based plans. From 2012 to 2013, the mobile prices as a percentage of GNI per capita showed greatest progress for the developing countries. Hence, the world mobile broadband prices as a percentage of GNI per capita for 2013 ranges from 5.8 for prepaid handset (500MB) to the highest at 8.5 for prepaid computer-based (1GB).\textsuperscript{106}

In the context of the above, both fixed and mobile broadband prices in Malaysia are below the 5% target set by BCDD, as well as being below the world average or the average for developing countries for both fixed and mobile broadband prices based on ITU’s study. Also, the fixed and mobile broadband prices as against GNI per capita showed a declining trend. Fixed broadband prices decreased from 3.2% of GNI per capita in 2010 to 2.42% of GNI per capita in 2013.\textsuperscript{107} Similarly there were decreases noted for mobile broadband prices, as well. For mobile broadband postpaid handset (500MB) category, it decreased from 3.2% of GNI per capita in 2012 to 1.39% of GNI per capita in 2013. For mobile broadband prepaid handset (500MB) category, in 2013, it was 1.39% of GNI per capita. For mobile broadband prepaid computer prices (1GB) category, from 3.2% of GNI per capita in 2012, it decreased to 1.76% of GNI per capita in 2013. Finally, for mobile broadband postpaid computer-based prices (1GB) category, from 2.2% of GNI per capita in 2012, it decreased to 1.76% of GNI per capita in 2013.\textsuperscript{108}

In addition to referencing prices against the GNI per capita which shows the cost of the service as against the economic value of the country, the ITU also measured prices as against household disposable income. Their rationale is that affordability is not only dependent on the price of the broadband service, but also on the economic means of the individual consumer. For fixed broadband prices in Malaysia, fixed broadband represents 1.64% of the average household disposable income, and for 80% of the households, fixed broadband consists of less than 5% of the household income. However, for the lowest 20% of the population, it represents 7.22% of their household disposable income as compared to only 0.64% of the household disposable income for the highest 20% - what it means is that fixed broadband service is 11 times more affordable for the richest 20 percent of the population as compared to the poorest 20 per cent.109

For mobile broadband prices (based on the prepaid handset based category), mobile broadband consists of 0.94% of the average household disposable income, and for 80% of the households in Malaysia, it consists of less than 5% of their household disposable income. However, for the lowest 20% of the population, it represents 4.16% of their household disposable income against 0.37% for the highest 20% - meaning that mobile broadband service is also 11 times more affordable for the richest 20 percent of the population as compared to the poorest 20 percent.110

8.3.2 Broadband regulatory trends at wholesale level

As mentioned above, accessibility to broadband is closely linked with affordability, which is related to broadband prices. Hence, there is a compelling reason to consider regulating the prices of broadband services in order to ensure the goals of accessibility and affordability are met. However, regulating broadband services is inherently risky as it could potentially affect the long-term development of broadband services. Broadband markets are currently still developing and continual investment is required in the infrastructure. In addition, customer demand and expectations are uncertain and evolving. Under such circumstances, in developing and designing their broadband offerings, service providers are actually testing the market’s response and would need flexibility to adjust the prices and packages accordingly.111

In terms of broadband services, most countries regulate at the wholesale level. An example is the UK and Australia. Singapore also requires its dominant operators to file

111 ITU, Regulating Broadband Prices, April 2012, p. 1.
their tariffs with IDA for approval, and these are mostly for wholesale services, with the exception of enterprise broadband service.\textsuperscript{112}

Ofcom has concentrated on wholesale measures as it views that this is the best way to ensure strong, effective competition at the retail level. It is applied to the operator having SMP in the wholesale broadband access market as well as the wholesale local access market. Hence, for the wholesale broadband access market, in the market where BT was designated as having SMP, general access and non-discriminatory obligations, a requirement to publish information, an accounting separation obligation, a cost accounting obligation and charge control of CPI-10.7% with sub-caps were imposed on BT. Likewise, in Hull, where KCOM has SMP, general access, non-discriminatory and transparency obligations were also imposed on KCOM.\textsuperscript{113}

In addition, there is also regulation at the wholesale local access market, which is the fixed connection from the end user to the local exchange. In its 2014 review, BT which has SMP in the UK excluding Hull, is obliged to provide local loop unbundling, Sub-loop unbundling, physical infrastructure access (such as ducts and poles) and virtual unbundled local access (for the fibre network). In addition, general remedies such as requirement to provide network access on reasonable request, request for new network access, no undue discrimination, Equivalence of Inputs, requirement to publish a Reference Offer, requirement to notify charges, terms and conditions, requirement to notify technical information, cost accounting and accounting separation are also applicable to BT.\textsuperscript{114}

In Australia, ACCC declared local bitstream access service, wholesale asymmetric digital subscriber line service, line sharing service and unconditioned local loop service which can be used by the Access Seekers to supply retail broadband services. In addition, ACCC has also made final access determinations which contain price and non-price terms and conditions for each of the four services above, which can be used by the parties in the event that they cannot reach an agreement on the terms and conditions.

\textsuperscript{112} For example, CityNet has filed its tariffs on ducts and manholes with IDA. StarHub has also filed its tariffs on local broadband access and wholesale broadband access service, both services provided over its cable network, whilst Singtel has also filed its wholesale broadband services with IDA. See \textless http://www.ida.gov.sg/Policies-and-Regulations/Industry-and-Licensees/Competition-Management/Telecom-Competition-Code\textgreater for more information.

\textsuperscript{113} Ofcom, \textit{Review of the wholesale broadband access markets: Draft statement on market definition, market power determinations and remedies}, 19 May 2014, pp. 5-6.

\textsuperscript{114} Ofcom, \textit{Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30 - Volume 1: Draft statement on the markets, market power determinations and remedies}, 19 May 2014, p. 4.
In Malaysia, Telekom Malaysia was found to be dominant in the retail fixed broadband and data market, whilst there is no dominant finding for the retail mobile broadband market.\textsuperscript{115} However, retail regulation may not be the appropriate tool to address lack of competition in fixed broadband market or to stimulate more competition in the competitive mobile market, as it is more appropriate in ensuring affordability. It is more appropriate to consider the issue and impose regulation, if required, at the wholesale level in order to stimulate competition at the retail level, in line with international experience.

\textbf{Question 13}

Do you agree with the MCMC’s view that wholesale regulation is more appropriate to ensure that there is broadband competition at the retail level?

\textbf{8.3.3 Broadband regulatory trends at retail level}

Generally, countries that have implemented measures at the retail level have done so to ensure affordability of broadband services to their citizens. Most developed countries, such as Finland and the USA, have implemented it through the universal service scheme or a targeted scheme for low income users. Some countries, such as Ireland, Uruguay and Brazil, have included entry-level broadband package, some are only valid for a limited duration, as part of their national broadband plan or national digital strategy to lower the price and to increase broadband penetration.

In Finland, in 2010, the Communications Market Act was amended to include broadband access at a download speed of 1 Mbps under universal service, to ensure its citizens have the right to access reasonably priced and quality broadband services. The Finnish Communications Regulatory Authority (“FICORA”) designated 26 operators as universal service providers, and monitors them to ensure availability of broadband services at affordable prices in accordance with universal service obligation.\textsuperscript{116} FICORA estimates that that a reasonable monthly fee for universal service subscription is between 30 to 40 euros.\textsuperscript{117}

In the USA, there are a few programs available to enhance broadband availability, and four examples are provided. Firstly, the Lifeline Program (which is part of the Universal Service Fund), originally provided access to telephony was reformed and modernised in 2012 to ensure affordability of broadband for low income citizens. The Federal Communications Commission ("FCC") selected 14 broadband pilot projects in order to study broadband adoption and use by low income populations and secondly, to test the potential for expanding Lifeline support to cover broadband services. In addition, FCC also has other initiatives, such as the Connect-to-Compete initiative to address broadband adoption barriers through digital literacy training and low-cost broadband availability.\textsuperscript{118} Further, the old Universal Service Fund was also transformed to Connect America Fund which focused on broadband, to enable availability of broadband infrastructure in underserved and rural areas.\textsuperscript{119} Finally, there is a E-rate funding program which assists schools and libraries to obtain affordable broadband.\textsuperscript{120}

In Ireland, the Department of Communications, Energy and Natural Resources entered into a contract with Hutchison 3G Ireland Ltd on 23 December 2008 under the National Broadband Scheme to provide basic affordable broadband services with minimum guaranteed speeds in 238,000 premises via a combination of mobile wireless and satellite services. The cost is €20.32 per month (including VAT), with a maximum once-off connection fee of €40.49 (excluding VAT) which covers the cost of any necessary customer premises equipment. The Scheme was renewed twice and at each instance, higher service specifications were specified, but these upgrades did not result in an increase in the recurring cost for the subscribers to the Scheme. The Scheme which was capped at €79.8 million ended on 25 August 2014, after which Hutchison 3G Ireland Ltd would continue to provide broadband services on a commercial basis.\textsuperscript{121}

Digital Agenda Uruguay 2011-2015 sets in place 15 objectives in relations to ICT development in Uruguay. The first objective is “Internet for all”, and one of the goals is for 60% of households to be connected by broadband or Next Generation Access by 2012 through the Universal Internet Household Service, and 80% by 2015.\textsuperscript{122} In that context, the state-owned telecommunications operator, ANTEL, offered a prepaid entry-level fixed broadband plan, with 512 Kbps with 1GB of data per 30 day subscription.\textsuperscript{123}

\textsuperscript{118} <http://www.fcc.gov/lifeline>.
\textsuperscript{119} <http://www.fcc.gov/encyclopedia/connecting-america>.
\textsuperscript{120} <http://www.fcc.gov/encyclopedia/e-rate-schools-libraries-usf-program>.
\textsuperscript{121} See <http://www.dcenr.gov.ie/> for further information.
\textsuperscript{122} <http://www.agesic.gub.uy/innovaportal/file/125/3/adu_english_version.pdf>.
\textsuperscript{123} This plan was cited in ITU, Measuring the Information Society 2013, p. 86. However, it does not appear to continue to be offered. See <http://www.antel.com.uy/antel/personas-y-hogares/Internet/planes/>.
As part of the Brazilian National Broadband Plan launched in May 2010 to provide mass Internet coverage at low prices until 2014 and to enable 11.9 million households to access the Internet, the Brazilian government would ensure that broadband packages with minimum speeds of 1 Mbps with prices starting at R$35 (about RM47) are available, which is a reduction from the current offer at R$45 (about RM60) on average. The Broadband Plan is estimated to cost R$13bn (about RM17bn) and would be implemented by the state-owned Telebrás with four other operators.\textsuperscript{124}

In Lebanon, governmental decree 6297 which was issued in September 2011 introduced a new entry-level ADSL broadband plan of 1 Mbps (with a usage cap of 4GB) at LBP24,000 (about RM56). This lowered the cost of entry-level broadband of the previous 1 Mbps plan by 70%. There were also other broadband plans that were included in the decree, ADSL plans for other speeds, 1 Mbps (with a usage cap of 10GB), 2 Mbps (with a usage cap of 20GB), 4 Mbps (with a usage cap of 25GB), 6-8 Mbps (with a usage cap of 30GB) and HDSL plan at 2 Mbps (with a usage cap of 40GB), with additional GB at 6000 LBP per GB.\textsuperscript{125} Subsequently, in 2014, the Telecommunications Minister announced plans to further reduce broadband prices under decree 6297, with the new entry-level broadband plan set at 2 Mbps (with a usage cap of 40GB) at LBP24,000.\textsuperscript{126}

8.3.4 Preliminary feedback received

The service providers were asked to provide measures that can be taken to enhance competition to ensure availability of broadband services at affordable prices for consumers, and secondly, if the MCMC should consider retail regulation of broadband services, what would be the implications on the service providers.

Celcom, Maxis, TM and YTL viewed that the focus should be on regulating at the wholesale level, whilst TIME proposed the implementation of structural separation of the incumbent operator and any other dominant service providers. DiGi, Jaring, TIME, U Mobile and YTL also proposed other measures (apart from regulation) to incentivise the demand and supply of broadband services. On whether the MCMC should consider retail regulation of broadband services, Celcom, DiGi, Maxis, Jaring, Packet One, TM, TIME, U

\begin{footnotes}
\end{footnotes}
Mobile and YTL disagreed with the proposal, with only Pernec Paypoint being in agreement. The relevant responses are summarised in the following paragraphs.

Celcom viewed that there is sufficient competition in low-speed broadband market, hence, it proposes that the focus should be on enhancing competition in the wholesale market for HSBB service, such as monitoring the arrangements to HSBB service, regulating the wholesale prices for HSBB service and regulating access to ducts.

Further, Celcom submitted that retail prices of broadband services should not be regulated, rather it should be left to market forces and competition, citing a 2006 report by Canadian Telecommunications Policy Review Panel to support its views. In addition, even without retail regulation, broadband has surpassed 50% penetration rate in 2010. The NBI’s affordability strategy is carried out through 1Malaysia Netbook, Pakej Mampu Milik Jalur Lebar 1Malaysia (also known as 1 Malaysia Affordable Broadband Package) and Economic Transformation Program on Smart Network. Celcom also viewed that ex post regulatory measure is also more appropriate. Celcom believed that it is risky to regulate broadband markets as there could be potential damage to the long-term development of the market, and retail regulation should only be considered as a last resort to address specific market failures. In addition, in contrast to PSTN voice services, there is a wide variety of ways in which broadband services can be provided depending on consumer demand. Finally, Celcom noted that there is continual investment required for the broadband network.

DiGi proposed guidelines to be issued to explain and clarify speed to consumers. According to DiGi, there is some arbitrary use of terms such as 3G and 4G by service providers who do not implement such technologies. DiGi viewed that price regulation of mobile broadband services as not appropriate.

Jaring viewed that the MCMC or a government body should own the broadband infrastructure and provide subsidies or absorb a percentage of the cost of the service providers. This, in the view of Jaring, would ensure that competitive prices would be offered by service providers, as it would grant the service providers with a greater ability to provide more innovative packages and to promote broadband services more effectively.

Maxis viewed that the focus of regulation should be on the wholesale market, especially for fixed broadband which is controlled by one operator. Due to the high wholesale rates imposed by the incumbent fixed operator (as compared to other countries such as Singapore, the UK, South Korea and Australia), other operators are not able to offer
competitive prices to the consumers, and hence, the incumbent operator can continue to charge higher prices. This would not benefit consumers in the long run.

Further, Maxis viewed that retail price regulation is not appropriate. Price regulation, if it is not reviewed regularly, can result in distortion and misallocation of resources. Further, retail price regulation of fixed broadband service would not lead to innovative broadband packages being offered to consumers. With the existence of high wholesale price, it would necessarily mean that the other providers would need to set high retail prices for fixed broadband services. Maxis provided the example of margin squeeze. Under this circumstance, if a price cap is set on retail fixed broadband prices, it would restrict the margin of the other operators and hence, it would not lead to innovative products. Similarly, Maxis viewed that retail price regulation of mobile broadband services would discourage providers from offering innovative and attractive broadband services that is currently in the market.

Packet One viewed that measures should be taken to ensure a level playing field and this would lead to competition and reasonable prices for consumers. For example, by reducing the price of backhaul and rental spaces for roof-top base stations could reduce the cost for service providers in providing broadband services.

Further, Packet One submitted that regulating retail prices is not necessary in order to enhance competition. Price regulation might cause a lower grade of quality to be offered to consumers, due to cost-saving reasons. In addition, unlike voice services which are between two persons, broadband speed and quality involves various network parameters, such as, design or utilisation and environmental factors, including consumer’s servers and routers which are beyond a service provider’s control. Hence, in consideration of the above factors, Packet One viewed that regulating broadband retail prices would be challenging.

Pernec Paypoint opined that the MCMC should regulate basic retail broadband services at 4 Mbps, specify the technical specification for access speed as well as enforce the access speed. Further, it submitted that segregation of the data and voice plan should be transparent to the consumer, as the current data plans are capped according to usage.

TM viewed that the focus should be on regulating the wholesale market, and a competitive wholesale market would not require counterproductive intervention at the retail price level. Retail price regulation would have an adverse impact on network investment and the ability of operators to offer attractive tariff plans and bundled services. Non-price differentiation is important in developing product bundles, as regulation on price and speed alone does not take into account the value that non-price
terms provide to consumers. Currently, TM packages different products at different prices to allow it to target different consumer groups and compete with other service providers. Prescriptive price regulation would hamper TM’s ability to package different services in a way that maximises the value for the consumer. In contrast, by allowing retail operators, including Mobile Virtual Network Operators, access to wholesale services would allow greater product innovation and allow operators to meet the needs of consumers more effectively. Further, globally retail prices are not regulated and price regulation on new and emerging broadband services should be subject to detailed impact assessment.

TIME submitted that competition can be enhanced through implementing structural separation on the incumbent operator and any other dominant service provider. Further, the MCMC should consider increasing demand for broadband services amongst the rural and lower income groups and to provide incentives to smaller providers to increase broadband coverage.

Further, TIME viewed that implementation of prices for certain bandwidth is cumbersome as the quality differs from one service provider to another. Broadband is not a generic product like PSTN service since its quality depends on factors such as contention ratio, peering partners, technology usage etc. Regulation of prices is unfair to service providers who differentiate their services, as they would be unable to provide a good quality service at a higher price. Further, TIME provided that wireless operators are no longer committing on bandwidth speeds, and are committing on bandwidth quotas instead, in their packages. Therefore, it is difficult for an apple-to-apple comparison to be made since bandwidth speeds are not made clear to subscribers.

In addition, TIME submitted that should price be regulated for certain bandwidths, it would compel service providers to offer very limited bandwidth quotas to the subscribers. Implementing maximum prices would reduce the incentive for service providers to provide innovative services with better Quality of Service or additional features, since the additional features would not necessarily be compensated. Finally, TIME viewed that if there is a maximum price imposed on retail prices without the same being imposed on wholesale prices, service providers who purchase the wholesale product would face price squeeze.

U Mobile submitted that continuous support from the Government in allowing exemptions for import duty on broadband modems or dongles as well as initiatives to incentivise and create awareness to the lower income consumers would assist in increasing the availability and affordability of broadband services.
Further, U Mobile viewed that affordability and accessibility of broadband services are largely determined by external charges, and price intervention might potentially disrupt the long-term development for broadband markets. It further submitted that broadband market is not mature with demand uncertainties, and the application of price regulation might hinder development and dissuade further investment in broadband infrastructure, and hence affect the long-term development of the market.

YTL submitted that measures to address high IP transit costs, to regulate access to ducts and pits in the Access List and to regulate its prices, as well as to address the exclusivity of State-backed companies from extracting economic rents as ways to enhance competition. In addition, the USP fund can also be used to build infrastructure to reduce the cost of providing service in the remote areas.

Further, YTL viewed that competition has made access to broadband and devices more affordable, and broadband prices should be set by the market. According to YTL, currently, service providers have the flexibility to design products for different markets based on duration of subscription, data capacity and devices. However, this flexibility will be lost when retail prices are regulated. In addition, with the pace of technological change, the rates that are proposed would be out-dated even before the Rates Rules is gazetted.

8.4 Retail broadband prices in Malaysia

8.4.1 Fixed and mobile broadband packages

One of the considerations before the MCMC is whether there is a need to stipulate or regulate a standard entry-level package (at a particular speed, for example) that needs to be offered by all service providers. What this means is that if there is a justification for regulating an entry-level package, the service providers would continue to have the flexibility to offer other packages that are not regulated.

In order to ascertain whether there is a need to regulate the entry-level broadband service at the retail level, as a first step, available fixed and mobile broadband packages offered by the service providers in Malaysia were surveyed with a cut-off point as at 26 January 2015. Due to the fluidity in the market, especially for mobile broadband packages, it is necessary that a cut-off point be specified, where new packages offered after the date are not considered.

There were a multitude of packages offered by 10 service providers that were surveyed, namely, Altel, Celcom, DiGi, Jaring, Maxis, Packet One, TIME, Telekom Malaysia, U
Mobile and YTL as at 26 January 2015. It ranges from the prepaid packages ranging from RM10 per month to bundles with high data capacity at RM498 per month.

8.4.2 Analysis of broadband packages

It was observed firstly that there are a myriad of packages offered in the market. It ranges from stand-alone broadband packages to meet the basic data needs of users, to bundled packages. There are broadband packages bundled with devices (where the device such as a modem comes free with the package), broadband service bundled with telephony and/or SMS (where the package includes certain amount of free minutes and/or SMS) or broadband service bundled with telephony, SMS and TV (known as triple play service).

In terms of technologies, it is observed that there are less fixed broadband packages as compared to mobile broadband packages. For the mobile broadband packages, it is observed that there are packages for computers or for handsets, and there are both prepaid and postpaid varieties. This appears to follow the international trend based on ITU’s study.

As this analysis is concerned with affordability of broadband packages, special emphasis is placed on the cheaper or entry-level packages aimed at subscribers who have a low usage pattern that are available in the market. The packages are tabulated in Annexure 2. There are two options available to the consumer – the monthly plans or top-up plans valid for a month, or the prepaid starter kit and thereafter to reload or top-up based on their needs.

There are monthly plans that consist of either handset-based or computer-based, and generally for postpaid plans, however, prepaid plans lasting for 30 days are also available in the market. There are data only packages for handsets, such as Maxis 100MB Monthly Pass for 0.1GB quota at RM18 per month, 200MB Monthly Pass for 0.2GB quota at RM28 per month, Altel Mobile Broadband Plan for 1GB at RM28 per month and Xpax Internet Plan for 0.8GB at RM28 per month.

The packages observed in the below RM30 range generally for computer-based broadband normally does not include the device, such as DiGi’s Broadband 25 (1GB) package at RM25, YTL’s Valuepack 10 at RM10 or YTL’s Valuepack 25 at RM25. Apart from YTL’s Valuepack 10 package, most of the packages are bundled packages (broadband with free telephony minutes and number of SMS). Hence, in terms of considering the entire telecommunications bill, assuming that the subscriber’s usage pattern is within the free quota provided, the packages would be affordable, even for
those who are from the lower income groups. An example is U Mobile’s Unlimited mobile Internet (UMI) 18 package at RM18 per month with data quota of 0.25GB and comes with 25 minutes and 25 SMS free of charge. Within this category, there are also special plans for college/university students under YTL’s Education Partner Program, such as the Campuspack 28 package at RM28 per month (not including the device). DiGi’s DG Smart Family bundled package at RM28 could offer additional savings for the family in terms of free voice calls and SMS between the principal and supplementary line holders.

Secondly, there are also prepaid starter packs available in the market. These are generally flexible plans, whether for broadband only (such as Hotlink Broadband SIM Pack) or for both telephony and Internet (such as DiGi Best Prepaid Starter Pack) and allows the subscriber to reload the value based on his or her own needs and for the duration required, for example for 5 days. In this category, Hotlink Maxis has the cheapest starter pack at RM5. There are also other starter packs from Xpax Celcom, and DiGi. YTL and Packet One also have prepaid starter packs which are on the higher price range as it includes the cost of the device. Thereafter, the subscribers can also reload the values based on their needs, as mentioned above.

Based on the above, it is noted that there are several packages available below RM30. Based on the available statistics on household income survey in 2012, a further analysis will be conducted on the affordability of cheap or entry-level broadband packages in Malaysia. A mobile broadband package at RM28 per month was chosen as this appears to be a common priced package offered by several service providers. Assuming a mean household income of RM5,000 per month, a mobile broadband package at RM28 would constitute 0.56% of the household income. However, when the bottom 40% of the households, with mean household income of RM1,847 per month is considered, the mobile broadband package of RM28 would constitute 1.51% of the household income. This is compared against the top 20% of households, with mean household income of RM12,159 per month, the same mobile package at RM28 constitutes 0.23% of the household income. This means that the same mobile broadband package is 6.5 times more affordable for the top 20% of households as compared to the bottom 40% of households.

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Although the MCMC takes an agnostic approach to affordable broadband packages, there is a marked difference between mobile broadband packages and fixed broadband packages in the market. Under certain circumstances, where a consumer has a choice between fixed and mobile broadband packages and the consumer has a specific requirement for higher capacity provided by fixed broadband services, the final decision made may not be motivated by pricing alone. As such, there is some merit to analyse the affordability of fixed broadband prices. Although there are a few packages at the speed of 1 Mbps that are offered in the market, due to TM’s extensive broadband footprint, its 1 Mbps product is more widely available as compared to other service providers. Hence, the analysis would be based on TM’s standard Streamyx 1 Mbps package (without a modem) at RM88 per month.

Based on the same statistics on Malaysian household income in 2012 as above, for the mean household income of RM5,000 per month, a 1 Mbps package at RM88 would represent 1.76% of the household income. When the bottom 40% of the households, with mean household income of RM1,847 per month is considered, the same RM88 package constitute 4.76% of their household income. For the top 20% of households, with mean household income of RM12,159 per month, it represents 0.72% of their household income. This means that the same RM88 package is 6.6 times more affordable for the top 20% of households as compared to the bottom 40% of households.

The results above are generally consistent with the study undertaken by the ITU, as elaborated in section 8.3.1. Fixed broadband prices in Malaysia stands at 2.42% of GNI per capita, whilst for mobile broadband prices, for the cheapest package for prepaid and postpaid handset at 500MB, it stands at 1.39% of GNI per capita. The ITU study has shown that generally for both fixed and mobile broadband services, it is more affordable in 2013 as compared to the previous year. In terms of measuring the broadband prices as against household disposable income, generally, it shows that for 80% of the households, it represents less than 5% of average monthly income, and hence is affordable for 80% of our households. However, for the lowest 20% of the population, mobile broadband represents 4.16% of their household income, whilst fixed broadband represents 7.22% of their household disposable income.

By using the abovementioned price points and Malaysian-specific data, for the average households, the RM28 mobile broadband package and the RM88 fixed broadband package represent 0.56% and 1.76% of their household income, respectively. However, for the bottom 40% of the households, the mobile broadband package of RM28 would constitute 1.51% of their household income, whilst the fixed broadband package of RM88 package would constitute 4.76% of their household income.
The MCMC would like to note that analyses conducted by the ITU and the MCMC are extremely sensitive to the available data, price points and assumptions used, and should be used with caution and within the context intended. Hence, whilst the absolute value should be considered with care, the trends shown by the data are considered as valuable indications and potential for further deliberation and consideration.

The MCMC offers the following as a conclusion of the analysis in this section. It is observed that as a proportion of household income, for all income categories, whether for an entry-level fixed broadband or mobile broadband package, it is within the goal of affordability as that set by BCDD, i.e. where it is less than 5% of the average monthly income of the average household. However, it is noted that when the economic means of the individual consumer is considered, then it appears that it is more affordable for some segments of society as compared to the others. Hence, it would appear that the lower income group (in this case, it would be represented by the bottom 40% of households) might face a greater burden, as compared to others in society generally.

8.4.3 Preliminary feedback received

The preliminary feedback from the consumer group indicated that the prices of broadband services are reasonable, although consumers may have difficulty in understanding the packages.

Service providers such as Celcom, Packet One, Telekom Malaysia, U Mobile and YTL also concurred with the consumer group that retail broadband services are generally reasonable and competitive. Maxis and Pernec Paypoint viewed that retail fixed broadband services are high and are not competitive, whilst the retail mobile broadband services are more competitive. DiGi commented that retail mobile broadband services are reasonable and competitive. TIME noted that retail fixed broadband prices are reasonable but viewed that an increase in competition as well as measures to address anti-competitive conduct would encourage greater service quality and packages to be made available. Jaring disagreed and commented that prices of broadband services in the market are still rather high, especially for mobile broadband.

There were some preliminary feedback provided on identifying groups of consumers who might not be able to afford broadband services. The consumer group indicated that this can be identified by income level; whilst YTL and Pernec Paypoint proposed senior citizens and groups with disability; Jaring, TIME and U Mobile suggested low income youth, students and families, and finally Pernec Paypoint proposed SMEs with revenue below 500K and 35-50 year olds.
Others have provided feedback that there is no longer a need to have a targeted approach. Maxis, Packet One and TM have indicated that the needs of these groups of consumers are already addressed under the various USP initiatives, whilst Celcom indicated that this was already addressed by Pakej Mampu Milik Jalur Lebar 1Malaysia (also known as 1 Malaysia Affordable Broadband Package).

**Question 14**

(a) Do you have any views on the affordability of broadband services in Malaysia? Please provide data to support your views.

(b) Do you have any views whether there are some segments of the Malaysian population who might not be able to afford broadband services? Please provide data as justification.

### 8.5 Proposed way forward

The MCMC has conducted a thorough investigation of the regulatory approaches in dealing with broadband, and broadly concurs that to stimulate broadband competition at the retail level, it is more appropriate to deal with any issue via wholesale regulation. Some service providers that have provided preliminary feedback, such as Celcom, Maxis, Packet One and TM also agreed that wholesale regulation is appropriate to enhance competition to ensure the availability of broadband services at affordable prices for consumers.

The MCMC has also considered the approaches used by some countries to ensure availability of affordable entry-level broadband packages, such as through universal service or by having entry-level packages under the national broadband plan. In Malaysia, as mentioned earlier, there are already Government and USP initiatives such as 1Malaysia wireless villages, 1Malaysia Internet centres, community broadband centres, community broadband libraries and telecommunications towers to expand the coverage of broadband to the underserved areas.

The MCMC has also conducted some analysis on the affordability of broadband packages in Malaysia. As mentioned above, it is observed that generally, for the average Malaysian household, whether for an entry-level fixed broadband or mobile broadband package, it is within the goal of affordability as that set by BCDD, i.e. where it is less than 5% of the average monthly income of the average household. Therefore, it is considered generally affordable. On the other hand, our analysis has noted that when the economic means of the individual consumer is considered, then it appears that it is
more affordable for some segments of society as compared to others. Hence, it would appear that the lower income group might face a greater burden, as compared to others in society generally.

This Public Consultation is undertaken to review the Rates Rules and the essential service that should be regulated under the Rates Rules based on concerns of affordability. As discussed in section 2.3.1 above, going forward, broadband is the essential service for the 21st century. In this regard, the MCMC is concerned about the affordability of broadband services to the lower income group. With the implementation of GST from 1 April 2015, the percentage of fixed broadband and mobile broadband price to disposable household income will increase as customers start paying GST. Hence, the MCMC believes that there may be a need to consider additional measures to ensure affordable broadband packages to this lower income group. One such measure is to consider regulating prices of affordable entry-level broadband packages via the Rates Rules.

In February 2015, the Minister of Communications and Multimedia Malaysia ("Minister") made a call and suggestion to the telecommunications operators to reduce the price of communications services for the long-term benefit of the end users. The MCMC welcomes the call made by the Minister and has emphasized that affordable broadband is important in reducing the burden of the citizens, to ensure increase in broadband penetration as well as to ensure that the lower income groups are not left behind in the digital age. To this end, the MCMC would work together with the industry providers to develop broadband packages for the long-term benefit of end users, and welcomes the positive response from the telecommunications operators.128

In order to assess the issue appropriately, the MCMC will be carrying out a separate Public Consultation on Affordable Broadband Packages, in tandem with this Public Consultation. However, the proposal to implement affordable packages in that Public Consultation is intended as a short-term measure, while this Public Consultation deals with a longer term measure, i.e. through regulation, to address the same issue.

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Question 15
Do you view that short-term measures such as developing affordable broadband packages is sufficient to address the affordability of broadband for the lower income group? Would a longer term approach such as regulation be required to address the affordability of broadband for this same group? Please justify your view.

8.6 MCMC’s preliminary view

As mentioned above, the MCMC views that the existing initiatives and incentives available in the market may not be sufficient to address the affordability of broadband services to the lower income group and therefore, there may be a need for regulatory intervention from the MCMC in the form of retail rate regulation for broadband services.

However, the MCMC is cognizant that there may be an alternative to regulation, such as the development of affordable broadband packages by the industry on their own accord, which can be considered as more flexible in meeting changing needs. This will be considered more fully as part of the Public Consultation on Affordable Broadband Packages. Hence, at this point in time, the MCMC maintains an open position.

Question 16
Do you agree with the MCMC’s preliminary view? Please state your reasons.
9 CONCLUSION AND NEXT STEPS

9.1 Next steps

The MCMC would like to thank all parties for providing preliminary feedback to this process, and looks forward to receiving submissions to this Public Consultation in order to make an informed decision for the long-term benefit of the end users.

In the interest of fostering transparency in the processes, the MCMC would like to set out the next steps and indicative timelines.

<table>
<thead>
<tr>
<th>Steps</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission on the PC Paper</td>
<td>30 April 2015</td>
</tr>
<tr>
<td>Publication of the PC Report</td>
<td>Tentatively end of June 2015</td>
</tr>
<tr>
<td>Press release to announce the publication of the PC Report</td>
<td>Tentatively end of June 2015</td>
</tr>
</tbody>
</table>
ANNEXURE 1: PRE-CONSULTATION RESPONSES RECEIVED

Responses to the MCMC’s questionnaire were received from the following stakeholders:

- Celcom Axiata Bhd.
- Jaring Communications Sdn. Bhd.
- Maxis Bhd.
- Packet One Networks (Malaysia) Sdn. Bhd.
- Pernec Paypoint Sdn. Bhd.
- Telekom Malaysia Bhd.
- TIME dotcom Bhd.
- U Mobile Sdn Bhd.
- YTL Communications Sdn. Bhd.
- Asian Contact Centres Sdn. Bhd. (only verbal feedback)
- Persatuan Ekonomi Pengguna & Keluarga Malaysia (MACFEA)
# ANNEXURE 2: SELECTED BROADBAND PACKAGES

Packages below the price range of RM30 per month:

<table>
<thead>
<tr>
<th>No.</th>
<th>Operator</th>
<th>Package name</th>
<th>RM/mth</th>
<th>Quota/mth</th>
<th>Other details (in brief)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>YTL</td>
<td>Valuepack 10</td>
<td>10</td>
<td>0.4GB</td>
<td>Device is not included. Requires either a prepaid starter pack or if have own device, require prepaid Yes ID at RM30. Data only pack. 0.4GB = 0.2GB peak + 0.2 non peak (valid for 30 days).</td>
</tr>
<tr>
<td>2</td>
<td>Maxis</td>
<td>100MB Monthly Pass</td>
<td>18</td>
<td>0.1GB</td>
<td>This pass consists of internet data only (valid for 30 days). No charges upon exceeding data, but speed is throttled.</td>
</tr>
<tr>
<td>3</td>
<td>U Mobile</td>
<td>UMI 18</td>
<td>18</td>
<td>0.25GB</td>
<td>Free 25 mins and 25 SMS (valid for 30 days). After quota is used, can either renew the plan or pay based on U Mobile’s standard prepaid tariff.</td>
</tr>
<tr>
<td>4</td>
<td>DiGi</td>
<td>Broadband 25 (1GB) (for existing Digi Postpaid customers)</td>
<td>20</td>
<td>1GB</td>
<td>This is for existing DiGi postpaid customers (for contract). Portable device is not included and is required to be purchased separately. T&amp;C applicable for registration. After monthly quota, postpaid internet top up is required.</td>
</tr>
<tr>
<td>5</td>
<td>DiGi</td>
<td>Broadband 25 (1GB)</td>
<td>25</td>
<td>1GB</td>
<td>This is for contract. Portable device is not included and is required to be purchased separately. T&amp;C applicable for registration. After monthly quota, postpaid internet top up is required.</td>
</tr>
<tr>
<td>6</td>
<td>YTL</td>
<td>Valuepack 25</td>
<td>25</td>
<td>1GB</td>
<td>Device is not included. Requires either a prepaid starter pack or if have own device, require prepaid Yes ID at RM30. Includes 100 min on-net calls, 300 on-net SMS (valid for 30 days).</td>
</tr>
<tr>
<td>7</td>
<td>Maxis</td>
<td>200MB Monthly Pass</td>
<td>28</td>
<td>0.2GB</td>
<td>This pass consists of internet data only (valid for 30 days). No charges upon exceeding data, but speed throttled.</td>
</tr>
<tr>
<td>8</td>
<td>Xpax</td>
<td>Xpax Internet Plan</td>
<td>28</td>
<td>0.8GB</td>
<td>This is a data plan (valid for 30 days). Free 800MB wifi quota at Celcom hotspots.</td>
</tr>
<tr>
<td>9</td>
<td>DiGi</td>
<td>DG Smart Family</td>
<td>28</td>
<td>1GB</td>
<td>Charges for calls and SMS: 15sen/min calls, 10sen/SMS. To top up mobile internet, there is mobile internet plan 48 or mobile internet plan 68. Between DiGi Family Lines: free 100 hours voice, 3800 SMS, 3800MMS. Other T&amp;C applicable.</td>
</tr>
<tr>
<td>10</td>
<td>U Mobile</td>
<td>U28</td>
<td>28</td>
<td>1GB</td>
<td>Free 100 on-net SMS, 200 off-net SMS (valid for 30 days). Pay-as-use rates applicable after quota used: 18 sen/min on-net call, 20 sen/min off-net call, 5 sen/SMS on-net SMS, 12 sen/SMS off-net SMS.</td>
</tr>
<tr>
<td>11</td>
<td>U Mobile</td>
<td>UMI 28</td>
<td>28</td>
<td>1GB</td>
<td>Free 50 mins and 30 SMS (valid for 30 days).</td>
</tr>
<tr>
<td>12</td>
<td>YTL</td>
<td>Campuspack 28</td>
<td>28</td>
<td>1GB</td>
<td>Special plan for college/university students under EPP programme. Device is not included. Free 100 minutes and 400 SMS (valid for 30 days).</td>
</tr>
<tr>
<td>13</td>
<td>Altel</td>
<td>Altel Mobile Broadband Plan</td>
<td>28</td>
<td>1GB</td>
<td>This is a data plan (valid for 30 days).</td>
</tr>
<tr>
<td>14</td>
<td>Hotlink</td>
<td>Mobile Internet Pass</td>
<td>30</td>
<td>1GB</td>
<td>Free unlimited SMS within Maxis/Hotlink networks (valid for 30 days).</td>
</tr>
</tbody>
</table>

Source: Respective service providers’ websites as at 26 January 2015