MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

PUBLIC CONSULTATION REPORT ON IMPLEMENTATION OF PRE-SELECTION

30 NOVEMBER 2004

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1. INTRODUCTION

1.1 Background

Equal Access by pre-selection was scheduled to be implemented on 1 January 2001. In year 2001, based on MCMC's recommendation, the Minister of Energy, Communications and Multimedia had issued a Ministerial Direction on Equal Access, Direction No.2 of 2001 that states that the implementation of pre-selection is to be deferred pending further review.

In August 2004, the MCMC issued a public consultation paper on Implementation of Pre-selection. The consultation paper sought comments on the following issues:

- Whether or not it is timely to implement pre-selection;
- Scope of services to be included in pre-selection;
- Whether or not end users be given the choice to select different service providers for different pre-selectable calls;
- The cost of implementing pre-selection, including cost apportionment and ways in which the cost can be recovered;
- The status of call-by-call EA if pre-selection is implemented; and
- Operational issues and the ways in which these issues can be addressed.

The MCMC received submissions from the following parties:

- Redtone Telecommunications Sdn Bhd
- Time dotCom Berhad
- Celcom (Malaysia) Berhad
- Maxis Communications Berhad
- Telekom Malaysia Berhad
- DiGi Telecommunications Sdn Bhd
- NasionCom Sdn Bhd

1.2 Structure of this report

The remainder of this report is structured as follows:

- Section Two of this report discusses the feedback from the public consultation;
- Section Three of this report contains analysis of the economic benefits and cost of implementing pre-selection; and
- Section Four sets out the MCMC's conclusions.

2. FEEDBACK FROM PUBLIC CONSULTATION

This section identifies the issues that were discussed in the consultation paper and summarises the submissions received.

2.1 Implementation of Pre-selection

The consultation paper sought views on whether it is timely for the MCMC to implement pre-selection in Malaysia, considering that the MCMC has addressed operational issues related to implementation of call-by-call EA.

Comments received

Of the submissions received, only NasionCom and Redtone supported implementation of pre-selection. Redtone, however pointed out that the MCMC should endeavour to find out the causes of why EA has not succeeded in Malaysia and address those issues.

TMB is of the view that pre-selection should not be implemented in Malaysia as the optimum time to implement pre-selection has passed. Currently TMB is already moving towards ATM/packet switching and considers pre-selection as a backward step in terms of cost causation and network planning. TMB pointed out that there could be some interoperability issues that TMB may face if pre-selection is implemented in a mixed NGN/non-NGN environment. In addition, TMB submitted that their analysis indicates that operators and consumers have shown little interest in EA and as such, it doesn't warrant additional spending.

Maxis indicated that the implementation of pre-selection is not pragmatic at this juncture. According to Maxis, the best value proposition that pre-selection offers is availability of various voice packages and rates via multiple carriers, thus enabling consumers to select the best option that suits their needs. In this respect, the communications industry has progressed towards this direction where consumers have numerous choices to make long distance and international calls through various avenues such as IP Telephony. This is further compounded by downward trend of global IDD rates in recent years. The combination of these factors has prompted existing players in the country to reduce their rates to remain competitive. For example, some service providers have introduced single IDD pricing, have abolished peak and off peak rates and have begun to provide VoIP services. These are clear indications of competition thriving in the segments of services proposed for pre-selection

In addition, Maxis anticipates problems associated with call-by-call EA such as delay in activating EA subscribers, delay in restoring line faults of EA subscribers and customers facing difficulties making outgoing calls to resurface with the introduction of pre-selection.

Based on estimates provided by TMB in year 2000, Maxis is of the view that the cost of implementation is significant. As a result, the expected cheaper rates may not materialise as operators may need to recover their cost from customers one way or the other. Therefore, the industry would end up investing in a losing market with minimal chance to recover their losses.

Maxis pointed out that although other countries have implemented CPS with a number of them experiencing growth, the dynamics of these jurisdictions are somewhat different. Some of these countries have implemented pre-selection way back in 1980s or 1990s when alternative services such as VoIP were either not popular or too new to make any significant impact. In addition, these countries had an entrenched call-by-call EA or an indirect access market with an established subscriber base. The scenario in Malaysia is somewhat different because the take-up for call-by-call EA has not been extensive and hence, does not provide the necessary springboard for the introduction of pre-selection. As such, Maxis believes that instead of forking out lumpy investments to upgrade networks for CPS, industry monies would be better spent on emerging technologies such as digital networks that can offer broadband in the form of voice and data services.

DiGi feels that the benefits of implementing pre-selection are questionable due to the lack of effective competition in the fixed line market. In this regard, DiGi is of the view that the implementation of call-by-call has not achieved the desired results. Although the Commission Determination on Mandatory Standard on Access, Determination No. 2 of 2003 (MSA) has addressed the line-by-line registration process, the gap between introduction of EA and pro-competitive measures are too long. During this time, voice market has been liberalised with the entry of VoIP operators who are able provide national and international calls. Also, the growth trend of fixed line services is declining with consumers moving towards subscription of mobile services. Hence, DiGi thinks that the significant cost likely to be incurred for purposes of pre-selection should be channelled towards the development of other core business sectors.

TIME has taken the stand that the MCMC should consider maintaining the current call-by-call EA and provide this particular form of call-by-call for sufficient length of time until the impact of removal of line-by-line as per the MSA begins to take effect. TIME argues that implementing pre-selection at this point in time will mean that the pre-selected operators will have to revert to a line-by-line registration process and will be faced with a whole range of operational problems similar to those faced for call-by-call EA. Though pre-selection benefits consumers as they do not need to remember the pre-fix of each service provider, TIME is of the view that this may not be a significant inconvenience for consumers in Malaysia as they are used to international calling cards where they are required to dial a range of approximately 12 digits in order to reach a destination. TIME is also of the opinion that pre-selection would not be a very prudent move as most consumers are already accustomed to VoIP services at competitive prices. This is further

compounded by the fact that the current ASP individual licence holders will be migrating to class licence in 2005, hence encouraging more competition in provision of voice services.

TIME estimated that the operational, administrative and process installation cost of pre-selection to be in the range of RM13 to RM15 million. TIME urged the MCMC to take this cost into consideration in light of the presence of VoIP players who provide stiff competition, making it difficult for pre-selected operators to recover their cost.

Celcom is of the view that since there is little interest from customers for EA, it does not warrant additional spending.

MCMC's views

The MCMC has considered the range of views submitted by interested parties as to why pre-selection should not be implemented. In particular, the MCMC agrees with the arguments put forth by Maxis, DiGi and TIME that implementation pre-selection is likely to bring about limited benefits to consumers as technological advancements and market liberalisation has brought about a range of services that can easily be substituted for services provided by way of pre-selection.

The MCMC has also noted TMB and Celcom's views that to date, consumers have not shown much interest in call-by-call EA. The MCMC is of the view that the lack of interest on the part of consumers is partly due to operational issues pertaining to call-by-call EA.

2.2 Implementation Method

The MCMC noted in the consultation paper that there are two ways in which pre-selection can be implemented, namely by way of switch modification or by using customer end devices. The consultation paper sought views on:

- The preferred implementation method and the justification for choosing that method; and
- Whether or not customer end devices should be used as an interim measure.

Comments received

TMB does not support the usage of customer end devices and believes switch modification to be a better option in the event that pre-selection is implemented by the MCMC.

Maxis would prefer a permanent pre-selection solution instead of the proposed interim measure of utilising customer end devices. This is because the administrative and operational costs of installing customer end devices

serve as additional cost to the operators besides cost of permanent solution. This in turn could manifest as an added stumbling block for the operators to set attractive retail prices.

TIMES believes that customer end devices should not be used as an interim measure as it is too costly.

DiGi prefers switch modification as it is cheaper to implement and this method dispenses the need to employ additional resources for installation of customer end devices.

Celcom considers switch modification to be the most effective and efficient method to implement pre-selection is in Malaysia.

Redtone advocates an approach to combine switch modification and customer end devices. Redtone noted that each of the implementation method may have differing cost structures. As a result, Redtone proposes switch modification in urban areas with critical mass of users, while customer premises equipment to be used in rural areas. Whilst Redtone is of the opinion that switch modification is more efficient, it accedes to the usage of customer premises equipment as an interim measure.

Switch modification is NasionCom's preferred implementation method. However, having considered the cost of switch modification, NasionCom considers installation of auto-diallers at the customer end may to be a more practical approach.

MCMC's views

The MCMC agrees with the prevalent view that switch modification is a more cost effective method in the long run.

2.3 Scope of pre-selection

The scope of EA is currently confined to long distance and international calls. Hence, the MCMC solicited views as to whether the scope of pre-selection should be widened to include other types of calls.

Comments received

TMB strongly feels that in the event that pre-selection is implemented in Malaysia, it should be confined to those services which were set out TRD006/98, namely basic PSTN services for fixed to fixed calls including voice telephony, facsimile communication and centrex services. If the MCMC decides to review the scope of the services subject to EA, MCMC should undertake a comprehensive review which provides for equal treatment of substitutable services such as mobile to fixed calls, mobile originated long distance and international calls. This is due to the fact that fixed calls are

increasingly being substituted by mobile calls. In addition, TMB is also of the opinion that pre-selection or equal access providers should be able to offer pre-selection or equal access to cellular subscribers similar to the manner that VOIP service providers are offering such services to cellular subscribers.

Maxis has not conducted any comprehensive study on the types of services to be included in the scope of pre-selection nor the cost or benefits of including such services due to their view that pre-selection may not be a feasible undertaking for the industry. Nevertheless, Maxis feels that if the MCMC decides to pursue pre-selection, it would have to consider the cost and technical implications of expanding its scope to capture other services as well as commercial issues. Maxis is of the opinion that if pre-selection is implemented, the scope of services should be confined to those mandated in the Access List and MSA to ensure feasibility of pre-selection in the market.

DiGi feels that it is ideal to expand the scope of pre-selection to include various types of calls such as local calls, fixed to mobile calls and operator assisted calls as it directly benefits consumers. By doing so, consumers will not be burdened with having to select different operators for different types of calls as this may result in confusion and frustration. From operator's perspective, due to their ability to provide all types of calls via pre-selection, they will be regarded as a total service provider. However, since calls over the fixed network are regulated with the exception of international calls, the market is less competitive and this does not provide incentive to other licensed network operators (OLNOs) to provide similar services.

TIME submits that the scope of pre-selection should be expanded to include local calls, fixed to mobile calls and operator assisted calls. TIME believes that the inclusion of fixed to mobile calls will encourage fixed subscribers to dial mobile numbers, particularly if the tariff offered is competitive.

Celcom does not support the proposal to widen the scope of pre-selection to include other types of calls as this will require modification or upgrading of all tandems and group mobile switching centres.

Redtone is supportive of the idea to widen the scope of pre-selection to include local calls, fixed to mobile calls as well as operator assisted calls as this will lead to a competitive and dynamic market environment that will provide customers with largest possible selection of services and service providers.

MCMC's views

As stated in the consultation paper, the MCMC is of the view that the cost of expanding the scope of pre-selection must be carefully weighted vis-à-vis the incremental benefits to consumers. In this regard, since the number of subscribers for call-by-call EA has not been encouraging, the scope of pre-selection should be confined to long distance and international calls.

2.4 Single basket versus multi-basket pre-selection

The consultation paper sought views on single basket and multi-basket pre-selection, the technical requirements and cost estimates of implementing single basket and multi-basket pre-selection.

Comments received

TMB considers a single basket pre-selection to be more suitable compared to multi-basket as foreign precedents indicate that multi-basket is likely to be quite troublesome and expensive for consumers and equal access providers alike.

As for technical requirements, TMB's network comprises of different types of switches and the hardware and software of these switches need to be upgraded to a version that can support pre-selection. In addition, there are certain types of switches that are unable to support implementation of pre-selection. Implementing multi-basket pre-selection also requires TMB to extend routing tables and switch office data at the exchanges as the number of operators of choice to end-users will increase with implementation of pre-selection. Extending routing tables and switch office data will take up more memory at exchanges and slows down processing time for exchanges.

Quality of service (QoS) of special services on TMB's network such as 100, 103 and 108 are likely to be affected if multi-basket pre-selection is implemented. This is mainly due to digit analysis. If digit analysis is carried out in TMB's network, major modification need to be carried out on office data and routing table at POIs to ensure that calls are routed correctly. Even if calls are handed over to other operators, QoS will still be affected as the operator's network does not cater for such services.

Maxis has not conducted a detailed study on the viability or costs of single basket versus multi basket pre-selection as on the whole, Maxis views pre-selection as a proposition that is not workable. However, Maxis reproduced some arguments put forth by the Australian Productivity Commission against multi-basket pre-selection.

DiGi holds the view that multi-basket pre-selection often leaves the subscriber very confused with the billing arrangements and fault reporting processes. Based on this, DiGi thinks that single-basket pre-selection is a better option simply because it does not burden the consumers in having to know which type of calls are to be routed to which operator.

DiGi has identified the technical requirements for implementing multi-basket pre-selection for both the original access deliverer and pre-selected carrier. The original access deliverer will have to condition controlled networks to implement pre-selection which includes programming exchanges to recognise routing prefixes. The pre-selected carrier will have to modify software in

exchanges to route pre-selectable calls. In addition to this, pre-selected carrier will have to lease additional links for increased traffic at various destinations.

TIME highlighted that in deciding to implement multi basket pre-selection, the MCMC should take into consideration that not all switches can be upgraded to implement multi-basket pre-selection due to the maturity of the switches coupled with a very high cost of upgrading or replacing them.

Celcom considers a single basket pre-selection to be more appropriate as it is easier and manageable from service providers' point of view. Multi-basket is more complicated and as a result, would lead to disputes on inter-operator billing issues.

Redtone believes that the customers should have the widest choice possible. However, they are mindful that multi-basket pre-selection is more complex to implement.

MCMC's views

The MCMC has noted that most submissions are not supportive of a multi-basket pre-selection as it is deemed to be more complex to implement. In particular, the MCMC has considered the submissions from TMB and DiGi on the technical requirements to implement multi-basket pre-selection. In addition, the MCMC is also mindful that in terms of billing, multi-basket may be more cumbersome for consumers who are likely to be faced with multiple bills. In this context, the MCMC considers single basket pre-selection to be more appropriate.

2.5 Cost of implementing pre-selection

In the consultation paper, the MCMC has identified three broad categories of cost for implementing pre-selection. The MCMC sought comments on whether interested parties agree with the three categories that have been identified.

Comments received

TMB, DiGi, TIME, Celcom and Redtone agree with the cost categories that have been identified by the MCMC, namely system provisioning cost, operator specific enabling cost and per line enabling cost.

Maxis is of the view that in relation to cost of implementing pre-selection, their preliminary research indicates that the approach proposed by the MCMC is in line international practice, save for some minor variations. Maxis added that any policies applied to costing should be fair, in line with best practises and not cause unnecessary burden to either operators or consumers.

In addition to the three categories of the cost that has been identified by the MCMC, Redtone is of the view that there could be other associated costs such as inter-operator billing and also management of both technical and operational aspects of the service. However such costs may be part and parcel of the current interconnect function (or partly captured in the other cost identified) and likely to be insignificant.

MCMC's views

Since most licensees agree with the three categories of cost that have been identified in the consultation paper, the MCMC maintains that main cost elements for implementing pre-selection are system provisioning cost, operator specific enabling cost and per line enabling cost.

2.6 Cost apportionment

In the consultation paper, the MCMC had identified six guiding principles that can be used to allocate cost. The MCMC sought submissions on whether or not interested parties agree with the MCMC's stance that the system provisioning cost should be shared equally among all operators, while per line cost and operator specific cost should be borne by individual operators.

Comments received

In terms of system provisioning cost, TMB is willing to agree to share the cost equally among all operators as proposed by the MCMC although there is no need for TMB to incur any cost to implement pre-selection as it's directly connected customers can and have always been able to utilise its network to make STD and IDD calls.

In terms of per line cost, TMB does not agree with the MCMC's proposal that it should be borne by the individual operator who incur the cost. Alternatively, TMB is of the view that in line with principle of cost causation, the operator who provides the dial tone should be entitled to charge the gaining operator.

DiGi feels that system provisioning cost should be shared between incumbent and pre-selection operators. This is justified on the basis of effective competition and distribution of benefits, given that all customers, including the incumbent, will benefit from the increased competition brought about by pre-selection.

TIME agrees that equal apportionment of cost is reasonable but there needs to be proper definition of qualifying costs. For example when the incumbent operator incurs system provisioning cost, it will benefit from the upgrade as well. Hence, there should be reasonable reduction in the cost allocated to other operators that reflects the benefits to the incumbent operator. This is

in line with the principle of distribution of benefits. In addition, TIME also proposed that the government should consider subsidising the system provisioning cost partially, as the consumers will be benefiting from implementation of pre-selection.

Celcom agrees that the system provisioning cost should be shared equally among all operators. However, Celcom disagrees that per line cost should be borne by individual operators who incur the cost. Consistent with cost causation principle, if an operator secures a pre-selected customer, then the incumbent operator who provides the dial tone should be entitled to charge the gaining operator the applicable per line cost. This is fair, reasonable and consistent with global precedent.

Redtone supports the principle of cost causation in that the party whose actions caused the cost to be incurred should bear the cost. Redtone is also not clear as to what system provisioning cost would entail and the scope in which other ASPs can participate. However, they noted that it is not equitable if operators who are not interested to roll-out pre-selection services are required to subsidise cost of network modification.

MCMC's views

In relation to system provisioning cost, most submissions are in line with MCMC's position that it should be shared equally among all operators. The MCMC also noted TMB and Celcom's views that incumbent operators who provide the dial tone should be able to charge the gaining operator the applicable per line cost. Research by the MCMC indicates that countries such as UK and Ireland have adopted the principle of cost causation in determining per line cost.

2.7 Cost recovery method

In the consultation paper, the MCMC discussed two cost recovery options, namely up-front cost recovery or spreading the cost over all relevant originating call minutes. The MCMC had proposed that the system provisioning cost should be spread over relevant originating call minutes. The MCMC sought comments on whether licensees agree with the proposed option and the difficulties that licensees are likely to face in implementing the proposed cost recovery method.

Comments received

TMB disagrees with the MCMC's proposal that system provisioning cost be spread over relevant originating call minutes. TMB considers a lump sum payment from other operators to be more appropriate as cost spread over relevant originating minutes will have effect on TMB's cash flow. However, in the event that the MCMC decides to implement other cost recovery methods, TMB should be assured of recovering its total cost for providing pre-selection.

Also, any deferred payment should take into account the net present value of any expenditure for pre-selection in near future, including the cost of borrowing.

DiGi is of the view that in order to establish the types of costs that are eligible for recovery, an operator should conclusively show in its proposal and its calculation that such costs is directly attributable for implementation of pre-selection. This should include dedicated costs, joint costs and incremental overheads. In terms of allocating costs, the difficulty is to ascertain the cost that is shared, whether it should be based on market share, number of subscribers or pre-selection revenue. Hence, DiGi is of the opinion that allocating the cost to originating call minutes is the best option as it overcomes the difficulties or problems associated with other alternatives.

TIME agrees with the cost recovery method proposed by the MCMC. TIME also recognises that the recovery of cost shouldn't be over an indefinite time frame. Nevertheless, TIME acknowledged that the main difficulty in determining the basis of cost recovery is the acceptable timeframe for incumbent to recover the cost.

Celcom is of the view that licensees who wish to offer pre-selection should share the capital cost among each other and make contribution to those licensees who have made earlier contribution to this cost. Hence, the payment or contribution in relation to cost recovery should be made in full, not deferred or by instalment.

Redtone agrees that the system provisioning cost should be spread over the relevant call minutes as it makes it easier for the provider to manage the cash outflow compared with the upfront costs recovery. However, they also concerned that the incumbent operator should not be over compensated.

MCMC's views

The MCMC notes that DiGi, TIME and Redtone support the cost recovery method proposed by the MCMC, while TMB and Celcom prefer an upfront cost recovery. As noted in the consultation paper, the MCMC believes that spreading the cost over originating call minutes will ensures that the existing operators as well as new operators who enter the market contribute towards system provisioning cost. In addition, as stated in the consultation paper, the said recovery method provides incentive for incumbent operator to minimise cost. As such, the MCMC maintains the position that system provisioning cost should be spread over originating call minutes.

2.8 Should call-by-call EA be retained?

The consultation paper sought comments on whether call-by-call EA should be retained if pre-selection is implemented.

Comments received

TMB, Maxis, TIME and Celcom strongly support the retention of call-by-call if pre-selection is implemented as pre-selection and call-by-call are complements rather than substitutes. TMB is of the view that the retention of call-by-call also provides choice for other operators whether or not to offer both pre-selection and call-by-call. Maxis also believes that call-by-call EA should be maintained as it offers consumers the choice of overriding the selected service provider. Further, Maxis also believes that compared to pre-selection, call-by-call is a better option as the convenience it offers to consumers outweigh the perceived benefits derived from CPS.

DiGi is of the opinion that upon implementation of pre-selection, provisioning of line-by-line EA should cease in order to avoid confusion for both customers and operators.

Redtone agrees that in the event pre-selection is implemented, call-by-call EA should be retained as the consumers should have choice.

MCMC's views

With the exception of DiGi, the other submissions support the MCMC's view that call-by-call EA should be retained when pre-selection is implemented. Hence, the call-by-call EA will be retained as it provides choice for consumers to select other service providers for long distance and international calls.

2.9 Operational issues

The consultation paper acknowledges that although the Mandatory Standard on Access contains most operational details pertaining to pre-selection, there will be additional operational issues that need to be developed in order to ensure that pre-selection is implemented successfully. The MCMC sought views on whether the MAFB is the appropriate body to develop the additional operational issues.

Comments received

TMB does not agree with the MCMC's view that the MSA contains most operational details pertaining to implementation of pre-selection. According to TMB, MSA only contains certain issues, while other agreed and documented processes need to be developed. For example, anti-slamming procedures need to be developed to ensure that pre-selection is implemented successfully. TMB agrees with the MCMC's view that the additional

operational details should be developed by the Malaysian Access Forum Berhad (MAFB). TMB however, expressed concern that based on previous experience other members of MAFB may lack enthusiasm.

Maxis is of the view that the MSA is still insufficient to address all operational issues pertaining to pre-selection. For instance, despite MSA, anti-competitive behaviour is bound to occur. Hence, Maxis believes that if pre-selection is implemented, specific issues such as the problems of slamming, cramming, anti-competitive behaviour, delays in activation, adherence to agreed service and provisioning should be addressed adequately. Maxis also agrees that MAFB is the appropriate body to look into these issues in more depth.

DiGi submitted that the introduction of pre-selection will impact the existing operational processes, most notably billing, order handling, service provisioning and fault handling. Operators will also need to modify or add to the existing operational support system in order to support pre-selection. In designing the processes to support pre-selection, prime consideration should be given to the ease of serving customer's request, which must neither be complex nor cumbersome. Also, the processes should inspire confidence among customers that their interests are being protected. In this respect, DiGi feels that the MSA has alleviated the issues related to registration of line-by-line EA. In addition, DIGi has outlined additional order handling and provisioning processes to be included in the MSA, in the event that pre-selection is implemented.

DiGi also proposed that complaint and fault handling process should also be designed to ensure that faults are correctly allocated. In addition, the inter operator billing should also provide the necessary records that allow a customer's bill to be correctly addressed. In terms of management of information statistics, the record of a customer's movement between operators should be the only mandatory requirement as this provides a basis for measurement of churn between operators. The fault data for pre-selection customers should be included as part of the normal quality of service reporting for each operator. In view of the MAFB's designation, DiGi agrees that the development of necessary procedures anticipated above ought to be under the purview of MAFB as it is in line with Government's and industry's interest of self regulation. The agreed procedures must take into account the following issues:

- The option available in pre-selection scheme;
- Customer's changing their pre-selected operator;
- Cancellation of pre-selected order in progress;
- Multi-line customers;
- Change of a customer's telephone number; and
- The definition of a date on which the change will take place.

TIME agrees that the MSA contains most of the operational details pertaining to implementation of pre-selection. TIME's main contention on operational

issues is process for registration of customers which caused the demise of call-by-call EA in recent years, as well as procedures for cost determination and recovery and dispute resolution methods. TIME agreed with MCMC's view that if there are additional operational issues that need to be developed, MAFB is the appropriate body to do so.

Celcom disagrees that the MSA contains most of the operational details pertaining to the implementation of pre-selection. Celcom feels that additional operational details will need to be developed in order to ensure that pre-selection is implemented successfully. Celcom also agrees that MAFB is the appropriate body to develop additional operational issues pertaining to pre-selection.

Redtone is of the view that the MAFB is currently dominated by Tier One telcos and there is not much representation of ASPs in MAFB as a whole, as well as on the board. As such, Redtone believes that it may not be the appropriate forum to discuss contentious issues such access to network and cost based pricing as service providers are likely to have divergent views on these issues.

MCMC's views

Most of the licensees are of the view that the MSA is insufficient for successful implementation of pre-seelction. With the exception of Redtone, all others support the MCMC's view that the MAFB is the appropriate body to develop operational details pertaining to implementation of pre-selection. The MCMC proposes that in the event that pre-selection is implemented, the MAFB should identify and develop the operational processes and procedures that should be in place.

2.10 Timeframe for implementation

The MCMC sought views on the time that is required by licensees to implement pre-selection.

Comments received

Given the range of technical, legal and operational issues, TMB considers that at least 12 months lead time would be required to implement pre-selection. Maxis estimates approximately six to nine months to upgrade its network, while DiGi estimates that it will take approximately 12 months. TIME and Redtone estimate that it may take between 12 to 18 months to implement pre-selection, while Celcom estimates approximately 18 to 24 months.

MCMC's views

The MCMC notes that the submissions on the time required for implementing pre-selection ranges from 6 months to 24 months. However, most licensees

consider 12 months to be sufficient to ensure that technical and operational requirements are put in place. Therefore, in the event that pre-selection is implemented, the MCMC considers 12 months to be an appropriate timeframe for full implementation.

3. COST BENEFIT ANALYSIS

3.1 Economic benefits of implementing pre-selection

The main economic benefits of implementing pre-selection are the benefits to end-users who are able to choose other service providers for long distance and international calls. The availability of alternative service providers gives rise to increased level of competition in the market. As a result of competition, over time, end-users will be able to enjoy lower prices, innovative service offerings as well as higher level of quality in service provision. However, these benefits are inherently difficult to quantify. Also, it is difficult to isolate to what extent the benefits can be attributed to pre-selection rather than other market liberalization policies implemented by the Government.

Nevertheless, it is possible to undertake qualitative analysis on the assumption that regulatory policies are primarily motivated by economic efficiency objectives in pursuit of ensuring benefits to end users. There are three forms of economic benefits that may accrue as a result of implementing pre-selection and these benefits are discussed in further detail.

(a) Allocative Efficiency

As stated above, one of the main benefits to end users as a result of implementing pre-selection is a reduction in prices for the services that are included in the scope of pre-selection. Such a reduction in prices is likely to have two main effects on consumers. First, the reduction in prices is likely to attract more individuals to consume the services. Secondly, existing consumers will be able to consume more of service as a result of decrease in price. The net effect to consumers will mainly be dependent on the elasticity of demand for the said service. Figure 1 illustrates allocative efficiency that can be gained by implementing pre-selection.

Figure 1 demonstrates two possible positions along the market demand curve, namely 'A' and 'B'. At 'A', competition is relatively limited and as a result, the market price 'P(A)' is relatively high while consumption 'Q(A)' is relatively low. This can be thought of as corresponding to the situation prior to implementation of pre-selection. As a result of introduction of pre-selection, increased competition will drive prices lower and this leads to a higher level of consumption. This is illustrated by a movement along the demand curve from position 'A' to position 'B' which results in a lower price 'P(B)' and higher consumption 'Q(B)'. At price level 'P(A)' the deadweight[1] loss is represented by triangle 'AYC'. As a result of reduction in price to 'P(B)', the deadweight loss to consumers is reduced to 'BZC'. Hence, the net

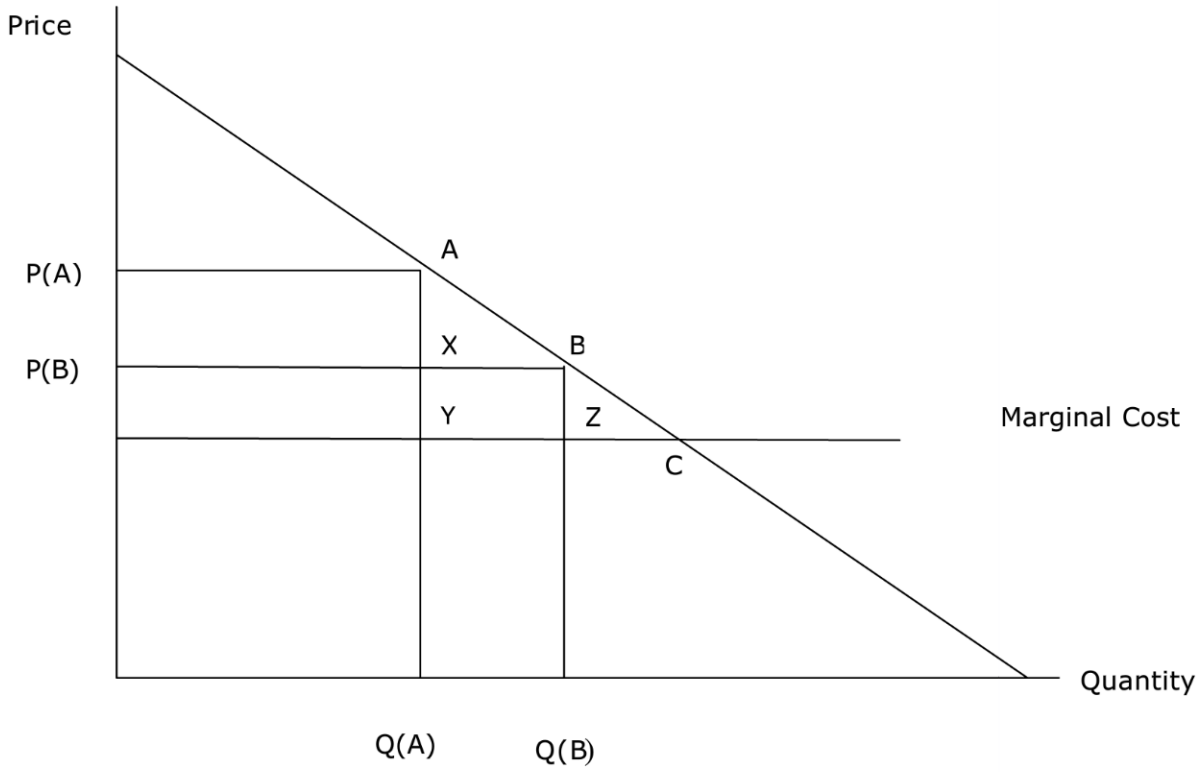
[1] Deadweight loss is a net loss in social welfare to society as a result of inefficiency of a situation or policy.

efficiency benefit to consumer is represented by the difference between are 'AYC' and 'BZC'.

(b) Productive Efficiency

Productive efficiency refer to a situation where competition provides incentive for service providers to reduce the underlying cost for providing the said service by increasing the level of efficiency. Productive efficiency can be illustrated by Figure 2 below.

Figure 1: Allocative Efficiency Gains

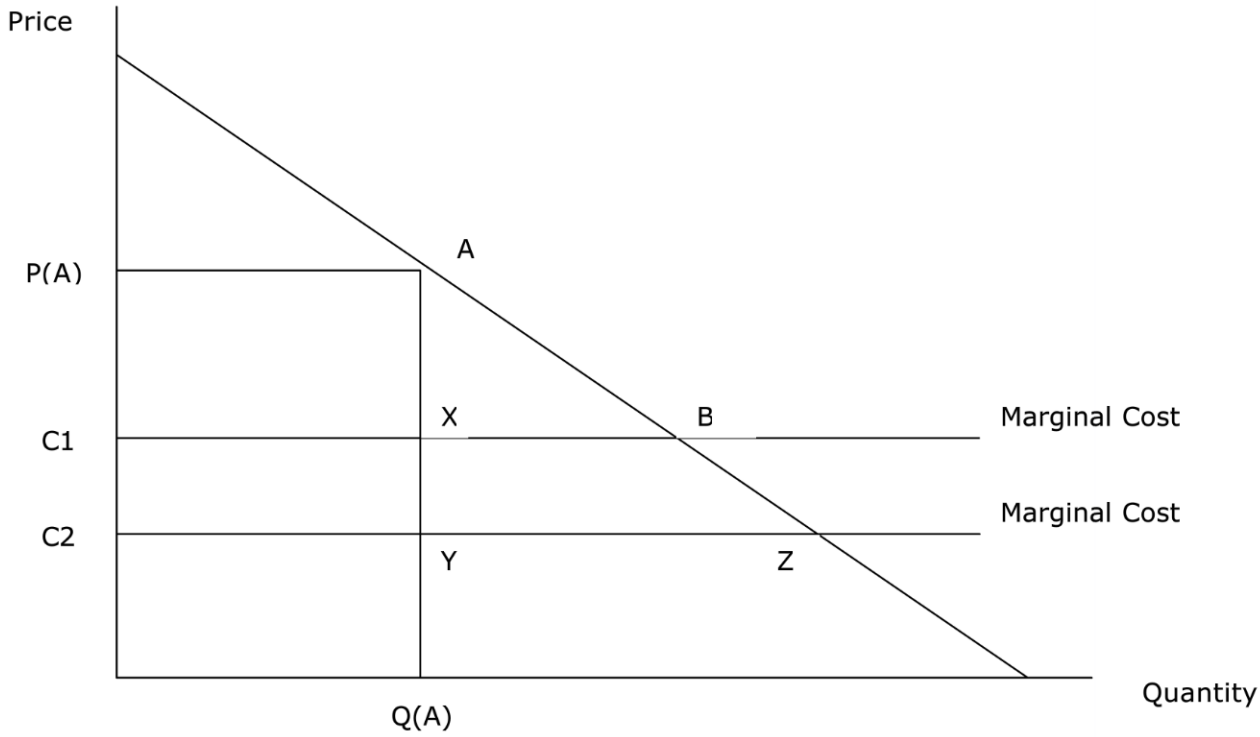


In Figure 2, the original price prior to the implementation of pre-selection is denoted by 'P(A)' and quantity 'Q(A)'. Competitive pressure in the market will force service providers to try to reduce cost and this reduction is denoted by the downward move in the marginal cost curve from 'C1' to 'C2'. As a result of reduction in cost, there is an increase in and producer surplus which is denoted by area 'C1XYC2'.

(c) Dynamic Efficiency Gain

Dynamic efficiency refers to a situation where competition leads to innovations and introduction of new technologies which subsequently lead to greater level of productivity. Although it is generally agreed that competition over a period of time is likely to result in efficiency gains, it is difficult to identify such gains and even more difficult to isolate such gains as a result of a certain regulatory policy such as pre-selection.

Figure 2: Productive Efficiency Gain



3.2 Cost of implementing pre-selection

In year 2000, TMB had estimated the cost of implementing pre-selection to be RM171.016 million[2]. This includes upgrading or modifying the existing switches that are pre-selection compatible as well as replacing switches that cannot be upgraded. In addition to this, there is also per line enabling cost. Although TMB, being largest PSTN service provider in the country is likely to

[2] TMB had initially estimated the cost of implementing pre-selection to be RM156.89 million and subsequently revised it to be RM171.016 million.

incur most of the system provisioning cost, other service provider implementing pre-selection will also incur similar cost, albeit to a lesser extent. TIME for example, has estimated that it will require approximately RM20 million to upgrade its switches and another RM15 million as operational cost for implementing pre-selection. Based on these estimates, it can safely be assumed that the cost of implementing pre-selection in Malaysia will well exceed RM200 million.

3.3 Conclusion of the cost benefit analysis

Based on the analysis carried out above, it appears that the implementation cost of pre-selection is substantial and will likely exceed RM200 million. In terms of benefits, the key benefits of pre-selection are the benefits to consumers. Although, the analysis above indicates that the increased level of competition will likely lead to allocative, production and dynamic efficiency, such efficiencies will only be realised over a period of time in an environment of healthy competition. Based on the statistics provided by TMB, it appears that consumers have shown little interest, if any to subscribe to call-by-call EA. Whilst the failure of EA can to some extent be attributed to the operational problems relating to call-by-call EA, it is irrefutable that this phenomenon is largely due to the advent of other services such as VoIP services. Since the long distance and international services are already thriving in a competitive environment, implementation of pre-selection may not bring about the desired impact in the market.

4. CONCLUSION

Overall, the submissions received indicate that the industry is not supportive of the move to implement pre-selection in Malaysia. The licensees that been affirmative about implementation of pre-selection have not provided any substantial evidence to indicate that the industry and consumers will benefit as a result of pre-selection.

Based on the submissions from industry and analysis carried out by the MCMC, the following conclusions are drawn.

- The main thrust of pre-selection is to accelerate competition in the market in order to promote long term interest of end users. However, there is little evidence, if any, that consumer will be benefiting from pre-selection. This is mainly due to availability of substitutable services such as VoIP services. VoIP service providers are able to offer consumers attractive rates due mainly to the cheaper technology. In addition, increasingly, the quality of VoIP services have been improving and it is predicted that VoIP services will be able to provide quality and features that are at least equal to PSTN services before year 2009.[3]
- The MCMC agrees with industry that pre-selection would have been beneficial to consumers if it had been implemented in early to mid 1990s as consumers did have not have many choices then.
- The MCMC believes that consumers will be better served if the cost of implementing pre-selection is spent on other regulatory initiatives such number portability.

As such, the MCMC has decided not to implement pre-selection and will amend the relevant regulatory instruments accordingly to reflect this decision.

[3] Report prepared by Stratix Consulting for OPTA titled "Voice Over Packet Technology Options", December 2003.