Bemobile submission to NICTA's Second Discussion Paper on the Public Inquiry into the need for a Retail Service Determination Regarding Certain Mobile Telephony Services

REDACTED VERSION

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Contents

1. Executive summary

bemobile is grateful for the opportunity to submit its views on this important and timely Discussion Paper.

It is a rigorous report and much effort has clearly gone into understanding the competitive nature of the PNG market. NICTA should be commended on an excellent and detailed analysis of the market and the issue under consideration.

We agree with the vast majority of the findings in the report.

In particular:

1. That the relevant market is a national market for the supply of a cluster a mobile services, and excludes fixed services. However it does seem that mobile internet will increasingly become part of the bundle of services supplied to customers.
2. The conclusion that Digicel has SMP.
3. The anti-competitive nature of the excessive off-net pricing means that no operator can compete with Digicel's on-net tariffs without incurring a loss.
4. The tariff mediated network effect prevents consumers from enjoying any-to-any communications – including meeting their legitimate expectation to be able to receive calls and SMS without artificial constraint.
5. The networks in PNG are almost entirely closed, negating the principle of any-to any connectivity and the principle of interconnection between networks. This is evidenced by the fact that over 97% of all mobile-to-mobile calls remain on-net.

The conclusions reached in this report are generally in line with bemobile's initial submission on the matter, however we believe that NICTA's analysis should have led to slightly differing remedies as discussed in detail in sections 2 to 4 of this submission and summarised below:

1. SMS has the potential to be an extremely strong source of tariff mediated network effects and should be specifically included in the Retail Services Determination (see section 2).
2. There is no justification for post-paid services being excluded from the Retail Service Determination and its exclusion would not only perpetuate the harm, but could also lead to significant gaming of the regulations (see section 3).
3. The Retail Service Determination should impose an absolute obligation not to discriminate based on the network called or Text Messaged. As drafted, discrimination can occur where it can be shown to be 'objectively justifiable based on differences in the costs of supplying that service'. We describe how this will distort the outcome in Digicel's favour, open the system up to regulatory gaming and how current MTRs cannot be used as a justification for retail price differentials (see section 4).

We will also show how the situation has become critically important to resolve as a matter of urgency and encourage NICTA to complete its analysis and make its recommendations in as expedited fashion as possible (see section 5). Section 6 provides responses to the questions asked by NICTA in the Discussion Paper.

2. SMS must be included in the retail determination or NICTA faces significant risk of failure

Paragraph 3.5.2 of the report discusses the supply of SMS / MMS and considers whether or not it is part of the same market as other retail mobile services. SMS is the most important of the two main messaging services so SMS is where we focus our attention in this section. The importance of SMS as a complement to voice rather than a substitute has been well recognised by NICTA but the range of circumstances of when SMS can be, and is used by mobile customers has been described in a somewhat narrower range than is typical in most markets where entire conversations take place using SMS as the communications medium.

In the limited number of academic studies available on the matter[1] SMS has been found to be a weak substitute for voice such that a 10% increase in voice prices results in a 0.8% increase in SMS activity. It has however been found to be a strong complement in the cluster market described – and increasingly complementary to voice as network size increases. It may be used at times as an alternative to voice when voice calls are not an option but more importantly constitutes a communications bearer in its own right used for two way conversations between people.

The NICTA analysis concludes that SMS/MMS should be included in the same market as mobile access and mobile call origination. We agree. NICTA also stated correctly (given the pricing of voice and SMS in PNG today) in paragraph 8.3 that 'Digicel's on-net / off-net price discrimination was greatest and most problematic in relation to its supply of national voice telephony', but it went on to conclude that it 'does not appear to be as problematic, or as likely to be problematic, in relation to its supply of SMS or MMS services'. As a result, SMS and MMS services are not currently proposed to be included in the Retail Services Determination. We believe this to be a significant oversight that jeopardises the success and objectives of the proposed Retail Services Determination.

We submit that SMS is very likely to be at least as problematic as voice and must be included in the Retail Services Determination. This section will detail why including SMS in the Determination is a critical and necessary action to safeguard competition in PNG.

There is stated intent from Digicel to use price discrimination

Digicel stated in its cross submission to the first discussion document that imposing 'significant differences in on – and off-net prices… is fundamental to Digicel's strategy' [2]. This clearly sets out Digicel's intent should NICTA not use its powers to prevent such activity.

We also know that Digicel has used significant price discrimination in the SMS market in recent times in particular with regard to SMS destined for bemobile's customers, setting a 40% differential between on-net and off-net domestic SMS prices:

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[1] Andersson, Foros and Steen, Text and Voice: complements, Substitutes or both. 2005. See also; Gryzbowski and Periera; The Complementary between Calls and Messages in Mobile Telephony. July 2007. Also; Yougsoo Kim, Rahul Telang, William Vogt and Ramavva Krishan: An Empirical Analysis of Mobile Voice and SMS service: A Structural Model.

[2] Digicel. Cross-Submission to the present inquiry. 2012 Paragraph 36.

SMS pricing January 2011:

Pre-paid / Flex	SMS price
Digicel – Digicel	25t
Digicel – bemobile	35t
Digicel – international	25t

As NICTA's analysis shows, the price for SMS from Digicel to bemobile in March 2012 is now the same as prices for Digicel to Digicel SMS at 25t. However, in our view the likely rationale for such a price change during the course of a regulatory investigation is in order to divert scrutiny away from the service during the inquiry rather than as a result of a sudden change of 'fundamental strategy' by Digicel.

Digicel will be well aware that in the cluster market that includes voice and SMS, an operator only needs to impose strong on-net / off-net differentials in one of those services for the club effect to become so strong as to perpetuate dominance in the market. Digicel have been clever in this regard. By changing retail prices in order to give the impression that SMS is viewed as unproblematic in this investigation, Digicel, if successful, will retain an equally strong potential tariff mediated network effect via strong retail price differentials in the SMS market as soon as its ability to behave anti-competitively in the voice market has been removed and regulatory scrutiny on retail pricing strategies has eased.

If Digicel's strategy is to use price discrimination as it states then there would be nothing preventing it from introducing retail price discrimination in the SMS market that is either as pronounced or even more pronounced than in the voice market. If Digicel were to charge say 90t for an SMS to bemobile's customers but just 5-10t for an on-net SMS, the network effect would be as strong or stronger than that observed in the voice market and the anti-competitive network effect would merely shift from one service to another within the same cluster but impacting virtually all the same customers.

If SMS had been a close substitute rather than a complement to voice then it could be argued that imposing a non-discrimination determination on voice alone would achieve NICTA's desired competition outcomes as any customer unwilling to send an off-net SMS would merely have to make a voice call instead. However, the fact that they have been found to be complementary services and are weak substitutes means that a strong retail price discrimination strategy would impose strong network effects – as has happened in the voice market.

NICTA is clearly aware of the risk to competition of the strong network effects in the market

At paragraph 6.4 NICTA states

> "Given Digicel's SMP in the retail mobile services market, NICTA staff do not believe that Digicel is likely to refrain from acting on the opportunity or incentive to engage in anti-competitive price discrimination or refrain from its current on-net / off-net price discrimination practices"

Going on to state:

> " In fact, rational competitors would respond to the incentive and take the opportunities of this kind that are available to improve their commercial position".

So, with Digicel stating that price discrimination is a fundamental strategy, and NICTA arguing that a rational competitor would take advantage of this kind of opportunity, it seems extremely likely that Digicel will impose high on-net / off-net retail price differentials as soon as feels it is able to – replacing one anti-competitive tariff mediated network effect with another in a service that is sold together with and is complementary to voice and locking customers in just as effectively as they have done in the voice market.

The strength of the SMS network effect could potentially be even stronger than experienced for voice

One significant difference relevant to this inquiry between voice based conversations and SMS based conversations is that with voice, only one person pays the cost of the call – and so, a conversation could take place between users of different networks as long as one party is willing to pay the off-net charge. SMS conversations however rely on both parties being willing to pay off-net call charges, otherwise there can be no two – way communication. A connectivity breakdown in SMS can be easily engineered if Digicel were to impose very high off-net SMS charges and so any bemobile user that wishes to enjoy anything close to any-to-any connectivity for SMS would need to migrate to Digicel's dominant network as that is where the majority of other subscribers reside and only by doing so would they receive SMS from Digicel's customers.

The strong network effects resulting from high retail price differentials in the provision of SMS services was demonstrated recently in New Zealand. The NZ Commerce Commission conducted a lengthy investigation into mobile termination and access services (MTAS)[3] and the competition impact of on-net / off-net price differentials. It was found that despite the two largest networks experiencing broadly similar market shares, the proportion of on-net SMS in 2010 was 89%. The retail price differentiation at the SMS level was substantial and led to a situation where 97% of Auckland's pre-paid students subscribed to Vodafone[4].

In its final report (5 May 2011) Commerce Commission summarised its findings on the SMS market as follows[5]:

> *"Impact of on-net discounting on SMS traffic*
>
> *83. Vodafone's **on-net SMS plans are particularly relevant**, given the importance of SMS in the New Zealand market.*
>
> *84. Historically, Vodafone's texting offers have been almost exclusively on-net. TXT2000, Vodafone's SMS plan which offered 2,000 on-net messages for $10 per month, applied to text messages sent to Vodafone's entire customer base,*

[3] www.comcom.govt.nz/mobile-termination-access-services-mtas-std/

[4] Report compiled by Phoenix for 2degrees, Submission to the Minister on the Commerce Commission's Final Paper on Mobile Termination Access Services, 8 March 2010, p 16, paragraph 3.14.

[5] NZ Commerce Commission: Final-MTAS-STD-Decision-Document-5-May-2011-Public-version.pdf.

whereas the off-net SMS price was 20 cents per text.

Conclusion on impact of on-net discounting

85. This is likely to have led to a situation where many prepay customers regularly call their BestMates[6]*, but* ***communicate with the majority of other people via SMS.***

86. The Commission is of the view that the low proportions of cross-net traffic exhibited in the New Zealand market demonstrate a lack of any-to-any connectivity and are a symptom of the on-net off-net price differentials described above. Furthermore, many of the on-net offers available in the market, in respect of both voice and SMS, are available for calls and SMS to all subscribers on a network, ***making it difficult for small operators to compete****."*

(emphasis added)

bemobile notes that Digicel offers on-net SMS at rates that are substantially lower than off-net rates in a number of other countries in which it operates, including through the supply of on-net SMS bundles.

For example in Fiji, Digicel charges 14c for an on-net SMS and 15c per off-net SMS but also offers the "SMS Club" bundle which for a $2 charge provides customers with 400 on-net texts over a period of 7 days. Digicel's advertising describes this offer as "Only ½ cent per text". [7]

In Aruba and Curacao, Digicel offers customers a number of on-net SMS bundle options. In Aruba Digicel charges standard rates of Afl. 0.18 for on-net texts and Afl. 0.25 for off-net texts. It also offers the SMS bundles set out in Table 1 which for pre-paid services, for example, provide effective rates that are as low as Afl. 0.08 per on-net SMS.

Table 1: Digicel Aruba SMS bundles[8]

	Charge	Number of on-net SMS
Pre-paid		
50 SMS bundle plan	Afl. 5.00	50
120 SMS bundle plan	Afl. 10.00	120
Post-paid		
50 on-net SMS	Afl. 5.00	50
120 on-net SMS	Afl. 10.00	120
200 onnet SMS	Afl 15.00	200
275 onnet SMS	Afl. 20.00	275
350 onnet SMS	Afl 25.00	350

[6] BestMates was a retail price offering from Vodafone NZ that enabled a user to purchase unlimited on-net calls and SMS to a specified Vodafone number for a fixed fee of 6 NZD per month.

[7] http://www.digicelfiji.com/en/about/promotions/sms-club-new

[8] http://www.digicelaruba.com/en/services/text-sms-bundles

In Dominica, Digicel offers the Digicel Talk/Regional/International & SMS plan. Under that plan, pre-paid customers can pay EC $25 which provides over the period of 7 days:

- unlimited local on-net calls
- 100 minutes of calls to the USA, Canada & Regional destinations.
- ***unlimited*** local on-net SMS. [9]

NICTA's conclusion that SMS is unlikely to be problematic is not borne out by the evidence and does not take into account either Digicel's fundamental strategy of retail price discrimination, nor its price discrimination activities in its other countries.

International Precedent

Singapore

On page 94 of the Discussion Paper, NICTA references the fact that even where MTRs are low, the incentive and ability to discriminate still remains. As an example of this, NICTA references the IDA in Singapore which 'prohibited on-net / off-net price discrimination from October 2001 to January 2005, despite MTRs being effectively set at Zero".

While the prohibition described is indeed true, it should be recognised that the policy was in existence prior to October of 2001 (as stated in the press release referenced by NICTA) and lifted in 2005 in recognition that the market had become both "mature and competitive" [10].

The problem for NICTA was in identifying the actual source documents but these were never made public and it is our understanding from conversations with IDA and Singapore operators that operators were written to individually and confidentially on the matter rather than there being a reference document published. The press release referenced by NICTA was issued as a result of operators attempting to interpret the private correspondence in their favour and that prompted the public statement in the form of a press release[11].

However, there is ample information and explanation in the public domain to show that SMS was the key driver of the original policy.

In 1997 M1, Singapore's 2nd entrant launched with a free on-net SMS offer which proved popular with customers. SMS at the time was only an on-net service as interconnection between operators for SMS had not yet been established.

[9] http://www.digiceldominica.com/en/help_faqs/best-value-with-digicel-unlimited-plus

[10] Press release 3 January 2005:
http://www.ida.gov.sg/News%20and%20Events/20050712123200.aspx?getPagetype=20

[11] Interpretations of this kind are frequent in regulated industries where participants attempt to find the most favourable outcome from the written rules. Often referred to as 'regulatory gaming' it provides significant incentive on regulators to ensure that absolute clarity is provided and where room is left for subjective interpretation, regulators can expect to find repeated challenges perhaps to the spirit, if not the letter of the regulations.

In February 2000, the 'long awaited"[12] SMS interconnection between M1 and Singtel had been set up and was ready to go live, however, M1 proposed charging a fee of 5c for messages sent to Singtel's customers. The Straights Times reported the dilemma presented at the time as follows:

> *"..if M1 charges its customers five cents for each message sent to Singtel mobile subscribers, it will have a two-tier pricing scheme for the same service – something the telecommunications industry regulator has declared as 'no-no'[13]."*

Then, quoting Dulcie Chan from the IDA, the article states:

> *"…"in principle", there was to be "no price differential" for all messages sent out."*

The article then continues:

> *"This would allow inter-operator short message services to take off and to ensure that they would be seamless, regardless of which operator users subscribe to."*

In the press release issued by the IDA when it announced the removal of the restrictions, it describes it's rationale for imposing the condition in the first place[14]:

> "…….differentiated pricing favours operators with significantly larger subscriber bases, as it could discourage consumers from switching operators and hinder the development of effective competition in the mobile market, especially in the initial days of competition development".

<u>Other precedents</u>

Other recent precedents of note include; Namibia where the regulation that prevents on-net / off-net retail price discrimination 'applies for voice and text messages'[15]. And; Qatar where the ictQatar order[16] states that no on-net / off-net price differentiation can be applied by a Dominant Service Provider (DSP) in Qatar. This applies to voice, SMS, MMS and video calls.

Summary and Recommendation

We submit that concluding that SMS should be excluded from the regulation would be a mistake and strongly urge NICTA to reconsider given the evidence provided in this submission. The case to include SMS in the Retail Service Determination is extremely robust. Our reasons are summarised here:

1. Digicel has a stated strategy that is to use significant on-net / off-net retail price discrimination;
2. NICTA's assessment is that a rational competitor would take the opportunity to improve its commercial position by imposing retail price discrimination;
3. Strong commercial incentives for retail price differentiation are well documented in the academic literature[17];

[12] Straights Times 11/02/2000 p58
[13] Straights Times 11/02/2000 p58
[14] As above.
[15] http://thornton.co.za/resources/NCC%20mobile%20tariffs.PDF
[16] ictQatar. ICTRA 2011/05/15)
[17] Jeon, Laffont, Tirole, Burke & Swann, Armstrong and Wright, Harbord and Pagnozzi

4. Digicel has previously engaged in SMS retail price discrimination against bemobile customers;
5. Digicel employs extremely wide on-net / off-net retail price differentials in a number of other countries in which it operates, including through the provision of heavily discounted on-net SMS bundles;
6. Voice is not a close substitute for SMS services so there is not the option of making a call instead if SMS interconnect is effectively choked off by excessive retail prices;
7. Connectivity breakdown is potentially more easily achieved in SMS where two parties must be willing to pay for the conversation – not just one as is the case with voice;
8. There is international precedent of the relationship between strong club effects and SMS retail price discrimination – making it difficult for small operators to compete; and
9. There is credible international precedent for banning any retail price differentiation for SMS on pro-competition grounds.

By contrast, the only reason/analysis put forward by NICTA for not including SMS was that as a result of the *current* on-net and off-net SMS prices offered by Digicel being the same at 25t, it 'does not appear to be as problematic, or as likely to be problematic' as voice and at 6.4.3 that 'NICTA staff also examined the pricing of SMS /MMS messages but did not consider there to be problems of a similar nature or scale as those associated with Digicel's pricing of voice calls'.

Ex-ante regulation should be cognisant of the potential risk of anti-competitive behaviour, not simply the fact that anti-competitive behaviour is taking place during the time of the investigation and we submit that the risk of regulatory inaction on the development of competition is considerable.

We agree with NICTA when it stated in paragraph 9.6 that regulatory 'inaction will allow Digicel to (continue to) price discriminate in such a manner that it induces a club effect and network effects that are so strong they effectively lock customers into the Digicel network and raise the barriers to switching, expansion and entry.' This statement is equally true of SMS as it is of voice. We also believe the risk of competitive foreclosure will be heightened considerably if SMS is left out of the Determination.

If NICTA does not include SMS in the Retail Services Determination, then once the investigation is over, Digicel can (and by all the evidence will) migrate their retail price discrimination from voice to SMS and ensure that the network effect is perpetuated just as effectively as it is today but via a different service.

If the objective of the National Information and Communication Technology Act 2009 of a competitive telecommunications industry are thwarted by a simple oversight it could hold PNG back for many years to come and consumers would suffer higher prices and lower investment than they would do if the right decision is made on SMS differentiation.

Furthermore, we can see no downside to including SMS in the regulations. There is always a chance that Digicel would not impose SMS retail price discrimination beyond this investigation, even if it were free to do so. However, if that were Digicel's intentions then it would be hard for it to object to NICTA including SMS in the Retail Service Determination terms.

The low risk option for NICTA is to include SMS in the Retail Services Determination. This contrasts with potentially catastrophic risk to the future health of this industry if SMS remains outside of the regulation. We therefore submit that it is critically important to include SMS in the Retail Price Determination at this time.

3. Excluding post-paid services from the Retail Services Determination will diminish the effectiveness of the regulation

NICTA staff have indicated in paragraph 6.4.3 that their focus has been on the pricing of pre-paid services (as distinct from post-paid contract services) because pre-paid constitutes the overwhelming majority of the market (99% of total subscribers and 97% of total revenues).

In addition at paragraph 8.3 NICTA state that the determination would apply only to 'pre-paid services'.

bemobile is unconvinced that sufficient analysis has been conducted in order to rule out post-paid services from the Determination.

The market has been defined to include mobile access and mobile call origination, SMS and MMS services. No distinction has been made between pre-and post-paid services in the market definition. Post-paid services are therefore part of the market in which Digicel holds SMP and which is susceptible to anti-competitive abuse of SMP. It therefore makes logical sense to work from a presumption that all services provided by the carrier with SMP should be included in the Determination, unless there are justifications to remove certain aspects of the service from that regulation. No substantive justification has been provided to remove post-paid customers from the regulation and on that basis alone, we urge NICTA to reconsider its conclusions and if no justifications can be provided, to include all services in the Determination.

Even if NICTA were to consider that post-paid services were in a separate market from pre-paid services, there is no reason to suppose that Digicel would have less market power in the provision of post-paid services. To the contrary, it is more likely that Digicel would have even greater market power in post-paid services than in pre-paid services given that it appears that Digicel's customers have a higher ARPU than its rivals'[18] which is likely to be indicative of it having a higher share of business customers – a market segment that is more inclined towards post-paid services. This implies that Digicel's market share of post-paid services is likely higher than its share of pre-paid services.

Market definition aside, there are also significant additional arguments that support the proposition that post-paid services should be included in the Determination.

The first is that by excluding post-paid, NICTA would to our knowledge, be the only National Regulatory Authority out of those that have imposed retail non-discrimination regulations to carve out post-paid services. All others have determined that pre- and post-paid services form part of the same market and are therefore subject to the same regulations.

[18] As indicated by the discussion on p. 36 of the NICTA report.

Second, post-paid contract services represent an important part of the overall business and if anything Digicel's market power is likely to be stronger in the supply of post-paid services.

Third, by excluding post-paid services from the Determination, those post-paid customers would continue to suffer excessive off-net prices for calls to bemobile customers, and bemobile customers would continue to suffer from reduced level of incoming calls. Digicel's user bases would continue to suffer switching barriers through artificial network effects, especially if they conduct business with or communicate regularly with any of Digicel's post-paid user base.

Take the example of a two small businesses competing to supply services to a large business which has a post-paid contract with Digicel. If both small businesses use a pre-paid service, one having Digicel as its provider, the other with bemobile as its provider, then, all else being equal, the small business that subscribes to Digicel's pre-paid service would enjoy a competitive advantage over its rival in supplying the large business purely because it would be cheaper for the large business to call it.   The fact that post-paid contracts only make a small proportion of the market does not mean that the network effect that would result from allowing Digicel to discriminate prices for post-paid services is limited to other post-paid subscribers – it filters out across the mobile community to the detriment of competition generally. Large businesses are a critical source of economic growth for PNG and the mobile community that supplies the large businesses is a critical segment for mobile competition. By allowing Digicel to price discriminate for post-paid customers, NICTA would soften competition in the wider high value mobile community.

Fourth, post-paid services are currently distinguished only by the payment method. It would seem unusual and unjustified to impose different pricing rules on customers who for example bought a service (pre - or post - paid) by credit card (which effectively means they pay well after the act of purchase and so could be classed as post-paid), or to have different retail structures for those who buy over the internet, or from a particular type of shop or agent. The payment methodology should have no bearing on the purpose of the regulation, or on the regulation itself.

Fifth, if NICTA were to remain of the view that post-paid services should be exempt from the regulations, it would need to define what a post-paid service is. This could lead to significant regulatory gaming by Digicel as it would have incentives to devise new post-paid products that fit a description of a post-paid service even if those new plans were not what might be described as traditional post-paid plans.

In summary:

Post -paid services are a part of the same market as pre-paid and provide broadly identical services to customers. We can see no justification for the payment methodology to have any bearing on the regulation whatsoever. There are numerous payment types available and to distinguish them with different regulatory rules is inappropriate, leads to confusion, is open to gaming and will limit the effectiveness of the regulation.

We encourage NICTA reconsider its rationale for proposing to carve out post-paid subscribers from the Determination and to seek guidance from international precedent of non-discrimination regulation. We respectfully submit that NICTA should widen the Determination to include all services provided by Digicel to its customers regardless of what their payment preference is.

4. The proposition to allow for continued discrimination between on-net and off-net calls is without foundation

NICTA proposes that that Digicel "shall not price discriminate on the basis of the mobile network that will terminate the call except to the extent that any such differences are objectively justifiable on differences in the costs of supplying that service."

We also note that NICTA proposes that it will assess any cost differences and that approval by NICTA shall be accepted as 'objectively justified'.

What NICTA has not been clear on is what in its view constitutes an 'objectively justifiable' cost. 'Cost' can be interpreted in a number of different ways depending on the circumstances and methodology adopted. For example, Long Run Incremental Cost (LRIC) is the cost basis for MTRs laid down by the European Commission with interpretations of that cost being subject to substantial differentials across the Union. Average or fully distributed costs are another basis for cost calculation which involves an allocation of common costs. Costs can be defined in terms of historic costs or through the use of a forward-looking replacement cost methodologies.

It would however seem that the spirit of the proposed principle is that 'objectively justifiable' cost differences would stem from the difference between off-net MTRs and on-net costs given that 'NICTA staff have no reason for assuming that the current MTRs accurately reflect actual costs'[19]

If this is the case then on the one hand, NICTA should look to how the current MTRs were arrived at, and on the other hand, determine the appropriate on-net cost principle and ensure that a robust modelling process is used to calculate that cost. Until both of these inputs are developed, there can be no objective basis for NICTA to run the assessment of what is an 'objectively justifiable' cost difference.

The price paid for MTRs is, under the National Information and Communication Technology Act 2009 (the Act), required to be based on cost (General Pricing Principles of Section 134 of the Act and Specific Pricing Principles issued by NICTA pursuant to Section 135 of the Act).

bemobile has always supported an incremental cost basis for MTRs (as described in the Act), and argued for that principle to be implemented during arbitration proceedings at the ICCC in 2008 when bemobile was negotiating bi-lateral interconnect access with Digicel. bemobile argued then (and continues to hold the view) that the price of interconnect demanded by Digicel at the time of arbitration was above cost and therefore unlawful, yet the prices are set despite NICTA staff also stating that they "have no reason for assuming that the current MTRs actually reflect actual costs"[20] [21].

[19] NICTA Response Report on Discussion Paper into the Potential Need for a Retail Service Determination to Certain Mobile Telephone Services: Page 19, no 27.

[20] NICTA Response Report. No. 27

[21] Input prices for Telecommunications equipment is generally priced in USD. The Kina has appreciated rapidly meaning that costs in Kina should have fallen. Market growth and increased economies of scale would also imply that costs are falling substantially over time. This is compounded further by interconnect costs around

This should lead to the conclusion that either bemobile had underestimated the cost of MTRs and they are indeed currently cost based, or regulatory intervention is required to re-set the rates so that they become cost based as described in the Act. NICTA cannot and should not simply assume and accept that MTRs are above cost for the purpose of price setting in the proposed Retail Service Determination but should instead, if uncertainty remains, investigate what the appropriate cost based MTRs are for operators in PNG and ensure that they are applied in the market.

A combination of above cost MTRs, and a strategy for excessive retail price discrimination between on-net and off-net calls has been shown to tip markets to positions of unassailable dominance and distort competition in favour of large networks. Digicel has had the platform to be able to both stifle competition and enjoy significant subsidies from rival industry players. bemobile paid Digicel [redacted] in interconnect payments in the year to April 2012.

We discuss MTRs and their relation to cost here as they impact on the Determination; either MTRs are indeed cost based and if so there is no justification for any discrimination in retail prices given that bemobile paid for all the set up costs of the interconnection links, or, MTRs are not cost based (which we strongly believe is, and always has been the case) and are currently artificially high solely due to Digicel's greater negotiating power exerted during the negotiation of the interconnection agreement. If agreement over interconnect prices between bemobile and Digicel had not been reached in a timely manner when negotiated in 2010, it could have resulted in interconnection being suspended (by Digicel) this would have had little, if any adverse impact on Digicel's business as such a small proportion of its calls go off-net (small impact on revenue, smaller impact on churn), however, it could have been catastrophic for bemobile as more than [redacted]% of revenues are derived from off-net calls and, perhaps more importantly, the number of lost customers who would migrate to Digicel due to the connectivity breakdown would have been very significant. Given the critical importance of continuity to interconnection for bemobile, it is understandable that the rates agreed commercially did not address bemobile's prior or post objection that the MTRs materially exceeded actual cost].

Digicel should not now be allowed to benefit from both imposing above cost MTRs on the one hand (which has resulted in bemobile paying such substantial net interconnect payments to Digicel) and on the other, using those excessive MTRs to justify distorting the flow of interconnect traffic and payments between our two networks via continued, albeit less pronounced retail price discrimination.

If MTRs are above cost then they should be urgently reduced to prevent continued distortion of competition in Digicel's favour. However, until that takes place, Digicel should not be allowed to continue to distort competition through continued retail price discrimination (even if they convince NICTA that it is objectively justifiable) *and* to receive subsidies from its competitors (bemobile and Telikom PNG Limited) from continued imposition of above cost MTRs.

In paragraph 6.4.3.4 (*Price discrimination not based on differences in cost*), NICTA suggests that an on-net / off-net retail price differential of 1:1.25 might be appropriate due to the cost of conveyance to a POI and the costs associated with that POI. This may have some grounding in other markets but

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the world decreasing rapidly over the period as regulators grasp the importance of low MTRs in driving pro-competitive outcomes in markets.

it has no relevance here in PNG due to the fact that Digicel wielded significant negotiating power during bemobile's interconnect negotiations with them resulting in bemobile paying the entire costs of deploying the interconnect links when they were first established Clause 3.3 of the direct interconnection agreement between bemobile and Digicel states: [redacted]. Furthermore, Digicel has contended that by virtue of Clause 3.2 & 3.3 bemobile is solely responsible for the entire cost for the interconnect links to the Handover Points which are to be located at Digicel's premises in Lae and Mt. Hagen.

International Precedent

NICTA states that a principle that allows for discrimination based on objectively justified cost differences is 'an approach consistent with that adopted in other jurisdictions'[22] then goes on to use Bahrain as its illustration. However, we note that this type of discrimination is not consistent with the vast majority of jurisdictions that have imposed ex-ante regulations and that appears to have been overlooked by NICTA. Jurisdictions that do not allow discrimination at all and have implemented simple to monitor, simple to police and simple to interpret non-discrimination principles include: Singapore (until the ban was lifted), Qatar, Namibia, Kenya, Columbia, Thailand, Paraguay, Bolivia, and UAE.

If NICTA is determined to be the expert in determining what should be 'objectively justified' rather than imposing a simple non-discrimination principle as we submit is the most appropriate outcome given PNG's interconnection regime and international precedent, then we seek assurances that cost guidance will be developed and implemented for the definition and calculation of both on-net costs and MTRs.

The most appropriate course of action however would in our view be to impose a simple non-discrimination principle and to initiate an urgent but separate investigation into MTRs.

5. Urgency is of utmost importance

NICTA should be commended for its work on this critical matter and commended for its considerable understanding of inter-network competition.

The Retail Services Determination is of critical importance to PNG if its fledgling telecommunications industry and its consumers are to enjoy the benefits of effective competition for the foreseeable future.

We agree with the majority of NICTA's analysis and conclusions with the material exceptions already discussed. We respectfully submit that the non-discrimination principle should apply to all services, apply to all customer payment methodologies and not be subject to additional cost calculations that will be difficult to administer and will distort the intended outcome of the Determination.

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[22] 2nd Discussion Document. Footnote 201. Page 77

We do however note that in the 18 months since bemobile initiated discussions with NICTA on the matter, competition has continued to suffer and bemobile's business has [redacted]. Clearly this is [redacted] and so a final recommendation to (and approval from) the Minister is [redacted].

Now the analysis has been competed we encourage both rigour and significant urgency in finalising the Determination and making the recommendation to the Minister.

6. Responses to NICTA's questions

This section provides responses to the questions posed by NICTA in its Discussion Paper.

Question 1 (for MNOs only): What assumptions about price elasticity of demand do you make when determining or reviewing your retail prices for mobile services?

Response:

In practice, when formulating new pricing offers or revising existing pricing, bemobile relies on the experience and knowledge of its senior personnel rather than using formal elasticity estimates.

It appears that NICTA is interested in obtaining information on the market elasticities of demand – for example, to what extent does total market demand increase in response to a 10% reduction in the market price? When making pricing decisions a firm typically focuses on how much market share it will be able to attract from rivals in addition to how much it can expand the market. This means it is a firm's own-price elasticity of demand that is of key relevance to its pricing decisions - that is, if it reduces its price, then how much will its own demand increase by. The difference between own-price elasticities and market elasticities is something that NICTA may need to consider when interpreting any estimates provided as a response to this question.

bemobile understands that the reason NICTA has inquired about the price elasticity of demand for mobile services is so that it can apply the hypothetical monopolist test (HMT) through examining the consequences of a hypothetical monopolist implementing a small but significant non-transitory increase in price (SSNIP). bemobile notes that the HMT analytical framework can still be helpfully used to analyse market boundaries even when estimates of elasticities are not available and a qualitative approach is taken. The Australian Merger Guidelines published by the ACCC explain:

> "While the HMT is a useful tool for analysis, it is rarely strictly applied to factual circumstances in a merger review because of its onerous data requirement. Consequently, the ACCC will generally take a qualitative approach to market definition, using the HMT as an 'intellectual aid to focus the exercise'"[23]

For example, as will be discussed in more detail below, in considering whether fixed and mobile services are likely to fall into the same or separate markets, it is possible to conclude that it is unlikely that substitution from fixed services would defeat a SSNIP by a hypothetical monopolist.

[23] ACCC (November 2008), Merger Guidelines, p.18.

This is because the mobility features that are characteristic of mobile services prevent fixed services from being a close substitute. While information on the cross-price elasticity of demand between fixed and mobile services may be useful to this analysis if robust estimates were available, the absence of that information does not preclude the use of the SSNIP framework or conclusions on the approximate degree of substitution.

More generally, bemobile does not consider it necessary for NICTA to collect information on the price elasticity of demand for mobile services given that the various mobile services are generally considered to be complements for each other instead of substitutes and therefore would fall into a cluster market.[24] It does not appear that any of the previous submissions have contended that mobile services are strong substitutes for one another and there is therefore no need to test that.

Question 2 (for MNOs only): What information do you have on price elasticities of demand for mobile services in PNG?

Response:

As discussed above bemobile has not calculated formal estimates of price elastiticies of demand.

Question 3 (for MNOs only): Do you have any international benchmarks of retail mobile pricing or other information that indicates whether the current retail prices for mobile services in PNG are competitive (i.e. that they are prices that would be set by a competitive market)?

Response:

bemobile understands that the context of this question is that NICTA is concerned that if the SSNIP test is applied to price points that are significantly above the competitive level this may result in an erroneous market definition conclusion. bemobile is of the view that off-net prices would likely be above the competitive level – this view appears to be supported by the international price comparisons that NICTA has conducted (for example on page 73 of its report).

Question 4: Are fixed voice call origination services and mobile voice call origination services in the same market? Is the situation the same for all call types (e.g.local/national calls, international calls, calls to mobile phones, calls to fixed phones)?

Please provide argument and evidence to support your views.

Question 5: Do you agree that fixed access services and mobile access services are in separate markets? Please provide argument and evidence to support your views.

Response to Questions 4 and 5:

bemobile considers that because mobile access and calling are a cluster it is more meaningful to consider the issue of substitution with fixed services for the access and calling cluster as a whole, rather than individually.

[24] If cross-price elasticities for the mobile services in PNG were available these would likely provide evidence to evaluate the degree of complementarity. However, it does not appear that this extent of analysis is required. For example, it is self-evident that mobile access and mobile calling are strong complements.

bemobile is of the view that for the purposes of the current consultation the relevant market is for the supply of mobile services only and does not include fixed services. This is because fixed services are not effective demand-side substitutes for mobile services since the former are provided at a fixed location whereas mobile services provide access anywhere within network coverage and can be used while the customer is moving[25].

The extra value that customers place on mobility would mean that they are willing to pay prices well in excess of competitive levels despite the availability of competitively supplied fixed services. As a result only a limited amount of substitution of fixed services for mobile services would be expected to occur in response to a SSNIP above the competitive price by a hypothetical monopolist of mobile services.

Mobile penetration in PNG is roughly 16 times the fixed penetration rate[26]. The low fixed penetration rate of around 1.8 fixed lines per 100 inhabitants (as compared with a rate of 27.84 for mobile subscriptions)[27] implies that a fixed line will not necessarily be available if a customer decides it wishes to place a call on a fixed line in response to a price increase by a hypothetical monopolist of mobile services. This will significantly hinder substitution of fixed calling for voice calling.

Internationally, a significant amount of analysis has focussed on the extent to which mobile services constrain the supply of fixed services. However, there has been less focus on whether fixed services constrain mobile services. bemobile is not aware of any international precedent that fixed services constrain mobile services sufficiently so as to form part of the mobile market.

In Australia, the ACCC, concluded that fixed services are not included in the mobile market:

> "While the ACCC found there were some signs of fixed-to-mobile substitution developing in relation to telephony services, and an increased incidence of bundling, the ACCC considered that differences in price, functionality and accessibility were such that fixed telephony services should not be included in the market for mobile telecommunications services."[28]

A report by the European Regulator's Group (ERG) found that for several reasons, but mostly due to the pricing differential between the two services, it cannot conclude that mobile and fixed services are substitutes,[29] and could discern no clear trend in fixed-mobile substitutability among European countries.[30]

In a recent order the US Federal Communications Commission concurs with this conclusion, finding that "because… the majority of residential customers continue to subscribe to both mobile wireless and wireline services, it appears that most mass market consumers use mobile wireless service to

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[25] Although fixed wireless services do offer a degree of portability they do not offer true mobility.
[26] ITU World Telecommunication/ICT Indicators Database.
[27] *Ibid.*
[28] *Public Competition Assessment – Vodafone Group plc and Hutchison 3G Australia Pty Limited – proposed merger of Australian mobile operations*, Australian Competition and Consumer Commission (ACCC), at ¶52. Available at http://www.accc.gov.au/content/index.phtml/itemId/874445/fromItemId/751043.
[29] *Report on Fixed-Mobile Convergence: Implications on Competition and Regulatory Aspects*, European Regulator's Group, ERG (09) 06, 2009 March at page 15. Available at http://www.erg.eu.int/doc/publications/2009/erg_09_06_report_on_fixed_mobile_convergence.pdf
[30] *Id.* at page 20.

supplement their wireline service rather than as a substitute for their wireline service,"[31] and that, "…while the increasing number of wireless only households suggests that more consumers view mobile wireless as a closer substitute for wireline voice service than in the past…there is insufficient data in the record to make such a determination here."[32]

bemobile notes that NICTA has discussed fixed-to-mobile substitution in its analysis of whether fixed services are in the same market as mobile services. Whether mobile services constrain fixed service supply is irrelevant because it is behaviour in respect of mobile services that is at issue.

Question 6: Are mobile data services and mobile voice (i.e. mobile access and mobile call origination) services is the same market or in separate markets? Please provide argument and evidence to support your views.

Response:

bemobile considers that as smartphones become more prevalent in the PNG market, mobile internet will increasingly form part of the cluster market for the bundle of mobile services. However it is possible that mobile broadband services provided over standalone data devices (eg, dongles and tablets) may form a separate market.

The decision on whether or not to include data in the relevant market is unlikely to have a material impact on the conclusions of the current analysis, particularly given the low penetration of smartphones to date.

Question 7: Do you agree with NICTA staff's proposed conclusion that the relevant market is the national market for retail mobile services with both the inclusions and exclusions as set out in this paper? Provide evidence and data to support your answer.

Response:

bemobile agrees that for the purposes of the current analysis the relevant market is the national market for retail mobile services. bemobile is of the view that this includes mobile access, mobile calling, SMS and MMS and mobile Internet because this is the cluster of services that customer can use once they obtain a mobile connection.

Question 8: Do you agree with NICTA staff's proposed conclusion that the retail mobile services market is susceptible to ex ante competition regulation? Provide evidence and data to support your answer.

Response:

bemobile does agree that the retail mobile services market satisfies the three criteria used in other jurisdictions such as the EU to determine whether the market is susceptible to ex ante regulation. What is unclear to bemobile is why NICTA feels compelled to apply the legislative criteria of other

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[31] Before the Federal Communications Commission, *In the Matter of: Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, WC Docket No. 09-135, Memorandum Opinion and Order, FCC 10-113, Released: 22 June 2010, at ¶59. Available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-10-113A1.doc.

[32] *Id.* at ¶60.

jurisdictions. What is relevant is the legislation passed in Papua New Guinea, namely the Act. It is an unnecessary distraction for NICTA to consider tests that have been legislated in other jurisdictions. Section 158 of the NICT Act sets out the retail regulation criteria applicable in PNG, as discussed and assessed in Section 9 of NICTA's Discussion Paper.

Question 9: Do you agree with NICTA staff's proposed conclusion that Digicel has a substantial degree of market power in the retail mobile services market? Provide evidence and data to support your answer.

Reponse:

Yes - bemobile agrees with NICTA's proposed conclusion that Digicel holds a substantial degree of market power in the retail mobile services market. bemobile's reasoning has been extensively discussed in its initial submission of December 2011 and in the expert report prepared by Ms Lanigan. We re-refer NICTA to bemobile's previous submissions and Ms Lanigan's expert report make the following specific comments on NICTA's findings:

Market share

bemobile agrees that although market share is not determinative of SMP, the very high market share held and sustained by Digicel across all measures (subscribers, revenues and traffic) does indicate Digicel holds substantial market power in the supply of mobile services. bemobile also agrees that revenue and traffic market shares will be of most relevance in examining SMP, because these measures are more reflective of the progress of rivals in achieving minimum efficient scale and the ability to earn a return on investment than market share of connections. This is particularly the case where there is common use of multiple SIMs.

Effect of Digicel's pricing conduct on the ability of rivals to raise capital and duplicate coverage

bemobile considers it vital when examining measures such as "control of infrastructure not easily duplicated" and "access to capital" to take into account the strength of tariff-mediated network effects. NICTA explains that Digicel's network coverage is currently substantially larger than bemobile's but concludes that "Any control that Digicel currently has over infrastructure that is not easily duplicated will thus be diminished over time – except possibly in relation to the 31+51 areas (referred to above) served by Digicel that are not required to be covered by bemobile's mandatory coverage obligations or current network expansion plans." This appears to be based on the assumption that bemobile will not be foreclosed from the market and will be able to continue to expand its network.

In respect of access to capital NICTA does not consider that this factor significantly favours Digicel because of the "advantageous arrangements of bemobile." Whilst bemobile may potentially be able to access capital and expand its network if it is able to convince its investors that they will be able to obtain a reasonable return on their investment, current market circumstances mean that the risk profile of bemobile is significantly higher than Digicel's and significantly higher than it would be if the Determination that bemobile recommends is proposed to and accepted by the Minister.

Correction of NICTA statement in second round paper: NICTA has stated that Trilogy International Partners is a part owner of bemobile and that control of bemobile rests with Trilogy/GEMS. Trilogy International Partners has no equity, direct or indirect, in bemobile, and Trilogy exercises no control management or otherwise over bemobile. Furthermore bemobile's ability to access capital is independent of and not influenced (positively or negatively) by any relationship between GEMS and bemobile and that of GEMS and Trilogy International Partners. bemobile's ability to raise capital is determined by its ability (rather than that of its shareholders' to repay the capital with interest) and therefore its ability to access capital is substantially affected by the current market conditions in which only the market leader, Digicel, is profitable and is projected to be profitable in the medium term.

<u>Network effects</u>

As has been discussed extensively in bemobile's previous submissions and in the main text of this submission, bemobile considers network effects to be of utmost importance in the PNG market. Price discrimination is a means through which Digicel is effectively strengthening its market power by creating network effects. bemobile agrees with NICTA's findings on this factor. As discussed in the main text of this submission, bemobile considers that the [redacted]. The inability of citifon to gain traction in acquiring traffic or revenue share despite offering rock bottom prices also strongly indicates the importance of network effects.

<u>Mobile number portability</u>

NICTA explains that anecdotal evidence suggests that many subscribers have mobile subscriptions with multiple networks. It considers that this may imply that price sensitive customers have little attachment to a particular mobile number. However, another way of interpreting the use of multiple subscriptions is that when a customer switches network it retains its old connection so as to continue to receive calls. This interpretation would indicate that consumers have a strong value on retaining a phone number. In the absence of customer survey analysis it is not possible to make a conclusion either way on the implication of multiple-SIM use for number portability. However, the strong take-up of number portability internationally does indicate that in general customers do generally value the ability to retain their number.

Question 10: If you agree with NICTA staff's proposed conclusion that Digicel has a substantial degree of market power in the retail mobile services market, do you also agree that that market power is harmful to competition for the reasons identified by NICTA staff? Provide evidence and data to support your answer.

Response:

bemobile agrees with NICTA's finding that Digicel's SMP is harmful to competition, given the ability and incentive for Digicel to use on-net/off-net price discrimination to create strong network effects and result in a margin squeeze. bemobile refers NICTA to previous submissions made by bemobile on this matter in December 2011 and March 2012.

Question 11: Do you agree with NICTA staff's proposed conclusion that it is appropriate for NICTA to consider the making of a retail service determination, in the circumstances in the form of a non-discrimination pricing principle or policy? Provide evidence to support your answer.

Response:

Yes – bemobile agrees with the proposed conclusion that it would be appropriate to implement a non-discrimination rule through a retail service determination. bemobile has explained in detail in previous submissions the need for such a rule and the severe risks to competition of refraining from regulatory intervention. To avoid repeating that discussion, bemobile refers NICTA to the bemobile reports submitted in December 2011 and March 2012. bemobile also agrees with NICTA's finding that even if the MTR was set at LRIC, the strategic incentive would remain for Digicel to implement large on-net/off-net price differentials because this would continue to dissuade customers from switching to other networks. This is finding is not only supported by the international precedents mentioned by NICTA but also by the economic literature (for example, see the report prepared by Ms Lanigan, submitted to NICTA in December 2011).

Question 12: Do you agree with the terms of NICTA staff's proposal for a retail service determination (as described in section 8 and set out in Annex C)? If not, please identify the specific amendments that you think are necessary and accompany those proposed changes with an explanation as to why such changes are necessary.

Response:

As explained in sections 2 to 4 of this submission, bemobile is strongly of the view that:

- SMS must be included in the determination. Failure to do so would allow Digicel to simply switch the focus of its price discrimination strategy from voice calling to SMS, allowing it to continue to lock-out rivals from effectively contesting customers.
- Post-paid services should be included in the determination. There is no justifiable reason for excluding post-paid services seeing as the only difference between post-paid services and pre-paid is that one is the payment process. Both services are in the single market defined by NICTA and to include one in the determination without the other would open the doors to regulatory gaming by Digicel.
- A simple non-discrimination clause is sufficient, justified and transparent. There should be no clause providing for discrimination on the basis of cost given that MTRs are required to be cost-based.

bemobile therefore seeks the following amendments to clauses 5 and 6 of the proposed retail services determination:

> 5. Application
>
> (1) This Determination applies to the supply by Digicel of mobile originated retail national voice call **<u>and SMS</u>** services that are supplied on a **<u>either a</u>** pre-paid **<u>or post-paid</u>** basis.
>
> (2) For the avoidance of doubt, the service described in 5(1) is a retail service.
>
> 6. Pricing principle

(1) In pricing the services to which this Determination relates, Digicel shall not price discriminate on the basis of the mobile network (including its own) that will terminate the call ~~except to the extent that any such differences are objectively justifiable based on differences in the costs of supplying that service~~.

~~(2) For the purposes of clause 6(1) only differences in cost that have been subject to assessment and approval by NICTA shall be accepted as 'objectively justified'.~~

~~(3) For the avoidance of doubt, Digicel may not begin charging prices that discriminate on the basis described in clause 6(1) unless and until NICTA has assessed and approved the costs differences for the purposes of this determination as described in clause 6(2).~~

Question 13: Has your organisation done any economic modelling of the effect of the proposed determination or of any restriction on on-net/off-net price discrimination? If so, please provide the model and results.

Response:

No, bemobile has not carried out any formal economic modelling of a non-discrimination rule. However the experience of bemobile and Citifon makes it plain that even with aggressive pricing it is very difficult to overcome the network effects created by Digicel's discriminatory pricing. As mentioned above, bemobile's subscriber volumes fell to [redacted] as of end April despite matching or undercutting Digicel's pricing. We consider that the network effects that arise from Digicel's use of price discrimination are a primary reason behind this outcome. We would expect that a restriction on Digicel's ability to price discriminate would greatly aid in levelling the playing field between Digicel and its competitors.[33]

Question 14: Do you agree with NICTA staff's proposed conclusion that the proposed retail service determination (at Annex C) satisfies the statutory retail regulation criteria?

Provide evidence and data to support your answer.

Response:

Yes, bemobile does agree that the proposed retail service determination satisfies the retail regulation criteria. However, the amendments proposed above in response to question 12 will further serve to promote the competition as discussed above in sections 2 to 4.

With regard to the analysis of Criterion 3 (Achievement of return on assets), NICTA states:

> "As the proposed determination does not increase the cost burden on Digicel, and as on-net/off-net price discrimination will continue to be permitted if there is are differences in the associated costs, NICTA staff are satisfied that the proposed determination would not prevent Digicel from achieving a return sufficient to encourage efficient investment."

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[33] As is evident from the SMP analysis there are number of other competitive advantages that Digicel benefits from that would persist. Although those advantages would continue to provide significant challenges for Digicel's rivals, addressing discriminatory pricing is a crucial first step to enabling effective competition.

bemobile is of the view that there is no reason to suppose that an absolute prohibition on on-net/off-net price discrimination by Digicel will jeopardise Digicel's ability to recover costs as it will still be free to set the level of mobile services prices in such a way as to ensure that the total costs of supplying mobile services are recouped.