

Bemobile Limited  
Ground Floor, Bemobile Limited  
Section 38 Lot 32, Waigani Drive  
PO Box 1055, Waigani  
NCD, Papua New Guinea  
Tel: (675) 325 9400

## Bmobile Submission to NICTA in response to Consultation Paper on Retail Pricing of Entry – Level Broadband Services

### 1 Introduction

Bmobile has prepared this response to the NICTA Consultation Paper on the Retail Pricing of Entry-Level Broadband Services.

The structure of this response is to comment generally on sections 1 to 4 of the Consultation Paper, and to specifically address questions 1-3.

### 2 Our Understanding of the Consultation Paper

Broadband services are a vital contributor to economic growth and job creation, and especially to reduce the disadvantages associated with living in rural and remote communities.

Bmobile supports the need to deliver affordable broadband services for these reasons. The use of mobile technologies to deliver broadband services in Papua New Guinea offers early benefits and is essential due to the lack of other options for service delivery such as copper and fibre cabling to premises in most of the country.

Bmobile provides voice, data and text messaging services to large areas of the country and has the infrastructure to provide wireless broadband services as described in the Consultation Paper.

To optimise the benefits to the community, broadband services should ideally be provided on a facilities based competitive basis through policies that encourage service providers to offer access on fair market terms.

The comments that follow are intended to describe the commercial and technical barriers to the provision of entry-level broadband services in Papua New Guinea, and where practical, we suggest approaches that could facilitate the widespread delivery of these broadband services.

### 3 Response to Section 1 – Executive Summary

The critical issue for the delivery of broadband services in Papua New Guinea, whether at entry level speed or not, is the high cost of service delivery.

The providers of broadband services rely on copper and fibre cable access to a limited number of customers in the cities, and on wireless services for the rest of the country including satellite and mobile technologies. For many in Papua New Guinea, even with the competitive market for mobile services, wireless broadband services are not affordable.

### 4 Response to Section 2 – Broadband Policy

There is no doubt that competition in the mobile market has resulted in reduced costs for voice, internet access and messaging services.



Bemobile Limited  
Ground Floor, Bemobile Limited  
Section 38 Lot 32, Waigani Drive  
PO Box 1055, Waigani  
NCD, Papua New Guinea  
Tel: (675) 325 9400

## **Bmobile Submission to NICTA in response to Consultation Paper on Retail Pricing of Entry – Level Broadband Services**

### **1 Introduction**

Bmobile has prepared this response to the NICTA Consultation Paper on the Retail Pricing of Entry-Level Broadband Services.

The structure of this response is to comment generally on sections 1 to 4 of the Consultation Paper, and to specifically address questions 1-3.

### **2 Our Understanding of the Consultation Paper**

Broadband services are a vital contributor to economic growth and job creation, and especially to reduce the disadvantages associated with living in rural and remote communities.

Bmobile supports the need to deliver affordable broadband services for these reasons. The use of mobile technologies to deliver broadband services in Papua New Guinea offers early benefits and is essential due to the lack of other options for service delivery such as copper and fibre cabling to premises in most of the country.

Bmobile provides voice, data and text messaging services to large areas of the country and has the infrastructure to provide wireless broadband services as described in the Consultation Paper.

To optimise the benefits to the community, broadband services should ideally be provided on a facilities based competitive basis through policies that encourage service providers to offer access on fair market terms.

The comments that follow are intended to describe the commercial and technical barriers to the provision of entry-level broadband services in Papua New Guinea, and where practical, we suggest approaches that could facilitate the widespread delivery of these broadband services.

### **3 Response to Section 1 – Executive Summary**

The critical issue for the delivery of broadband services in Papua New Guinea, whether at entry level speed or not, is the high cost of service delivery.

The providers of broadband services rely on copper and fibre cable access to a limited number of customers in the cities, and on wireless services for the rest of the country including satellite and mobile technologies. For many in Papua New Guinea, even with the competitive market for mobile services, wireless broadband services are not affordable.

### **4 Response to Section 2 – Broadband Policy**

There is no doubt that competition in the mobile market has resulted in reduced costs for voice, internet access and messaging services.

This form of market pressure will continue as demand for services is stimulated by growth in GDP at present related largely to growth in the mining and petroleum industries.

To some extent it may be assumed that more people in Papua New Guinea will be able to afford competitively priced broadband services as economic growth continues.

However, there are views<sup>1</sup> that the benefits of the growth in GDP may not spread equally to all sectors of the population. Bmobile acknowledges that even in the competitive market in which it operates, some sections of the community may not be able to afford broadband services and the economic and social benefits that would result.

**Question 1: How Should NICTA assess the affordability of entry-level broadband services?**

Bemobile accepts the position taken by UNESCO that a suitable cost for entry-level broadband services should be no more than 5% of the average monthly income (as measured by the Gross National Income (GNI) of K200 – 220 per annum). This means a target cost for entry level broadband services is K15-20 per month.

Chart 1 shows the supply side contributions to economic growth over recent years<sup>2</sup>.

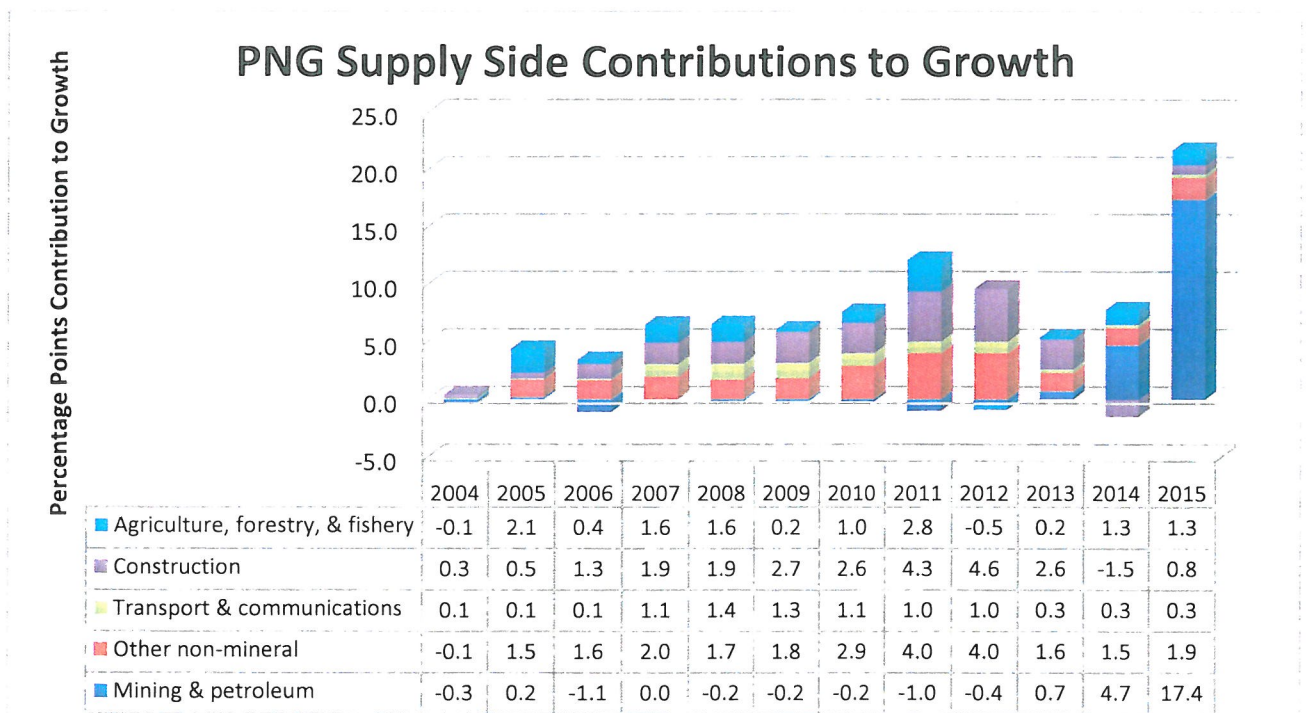


Chart 1 – Supply Side Contributions to Growth

<sup>1</sup><http://www.abc.net.au/news/2014-04-03/ra-png-economic-growth/5363780>

<http://www.adb.org/countries/papua-new-guinea/economy>,

<sup>2</sup><http://www.adb.org/sites/default/files/ado2014-png.pdf>





Bemobile Limited  
Ground Floor, Bemobile Limited  
Section 38 Lot 32, Waigani Drive  
PO Box 1055, Waigani  
NCD, Papua New Guinea  
Tel: (675) 325 9400

It is clear that in the immediate future that mining and petroleum contributions to growth will exceed other supply side inputs, and as such the income gap between those who benefit from this contribution and those who will not may widen.

Mobile service providers will experience market growth opportunity for broadband services from those parts of the community that benefit from the mining and petroleum industries and this is where capital investment to meet this growth in demand is likely to occur.

The remainder of the community who do not benefit directly from the mining and petroleum industries may not experience much increase in purchasing power for broadband services.

Our response to question 1 is that any accepted international approach for broadband affordability in developing countries is a suitable benchmark to adopt for Papua New Guinea. We make the following qualifying remarks however:

- The average income of K4,000 – 4,400 pa is used to set a level of affordability for entry level broadband services of K15-20 per month. This assumes that half the population earn less than K4,000 – 4,400 pa and so on this basis many people would not achieve affordability even for this target service cost.
- Papua New Guinea is an expensive country in which to develop and deploy any complex infrastructure, including broadband services. The difficult terrain, widely dispersed population, high international access costs and duplicated networks mean no matter how competitive the market and efficient the service providers, underlying costs will remain high.

## 5 Broadband Affordability

We note the ranking of Papua New Guinea in terms of the ITU's assessment of affordability and that costs are seen to be very high as a percentage of GNI. Most of the countries ranked above Papua New Guinea have significant natural advantages of higher population density, less demanding terrain and a higher GNI per capita so that comparing countries in this way is not helpful in determining how to improve broadband affordability.

If GNI was higher, population density greater and the terrain more amenable to infrastructure deployment, Papua New Guinea would be more competitive than it is. These factors are outside the scope of any service provider to change significantly.

We note the NICTA staff approach to the assessment of the affordability of entry-level broadband services and that many of the parameters align with the ITU EGTI information published in the December EGTI 2013 report<sup>3</sup>, and make the following comments:

- For many households in Papua New Guinea, a single broadband connection will benefit many members of that household through the use of the mobile device as a local access modem. In this case there may be benefit in an entry-level household broadband service

---

<sup>3</sup>[http://www.itu.int/en/ITU-D/Statistics/Documents/events/egti2013/EGTI2013\\_report.pdf](http://www.itu.int/en/ITU-D/Statistics/Documents/events/egti2013/EGTI2013_report.pdf)



Bemobile Limited  
Ground Floor, Bemobile Limited  
Section 38 Lot 32, Waigani Drive  
PO Box 1055, Waigani  
NCD, Papua New Guinea  
Tel: (675) 325 9400

whereby the target access price is say 5% of the average household income, aligned with a more generous download limit than suggested for individual consumers.

- Fixed broadband services (xDSL etc) have lower capital and operational costs than wireless services and so access prices could be lower or download and access speeds higher.
- Mobile handset-based broadband services imply a single user accessing internet based services from a smart phone or tablet. This approach benefits fewer people and has a lesser potential cost to the service provider through reduced download capability on average.
- Mobile computer-based broadband services also implies a single user but with a greater potential for download requirement.

Overall, we believe that NICTA is suggesting that entry-level broadband services may be appropriate at three product levels as shown in Figure 2 of the Consultation Paper. In relative terms, we agree with the differing download speed and data usage approach and suggest that a fourth entry-level service specification may be appropriate – that of a family broadband service that offers increased download speed and data usage for an increased price.

We further suggest that if NICTA were to recommend the introduction of entry-level broadband services to service providers, that they offer a guide similar to that set out in Figure 2 with a fourth (Family) service added.

Figure 3 in the Consultation Paper confirms that the most cost effective broadband services are provided over mobile services where there is strong competitive pressure to meet market needs. This may be an indication that underlying costs are a significant barrier to further price reduction for broadband services.

## 6 Broadband Price Monitoring

Bmobile agrees that there is a downward trend in wireless delivered broadband services and that reductions in wholesale access to international internet services is one practical approach for government to assist in price reductions.

**Question 2:** What initiatives or actions by NICTA could help broadband service providers reduce their costs and improve the value of the retail broadband services provided to end-users?

There are a number of common areas of capital and operational cost for service providers that impact retail pricing and which NICTA or other government departments could influence. The following sections describe these cost input reduction options:

- International access prices can be further reduced by allowing Papua New Guinea service providers to aggregate demand and negotiate long term bulk supply arrangements.
- Infrastructure duplication is common throughout Papua New Guinea for mobile networks, and this results in higher capital and operational costs and in turn leads to higher retail prices. There are a number of initiatives that can be considered to reduce infrastructure duplication, such as:





Bemobile Limited  
Ground Floor, Bemobile Limited  
Section 38 Lot 32, Waigani Drive  
PO Box 1055, Waigani  
NCD, Papua New Guinea  
Tel: (675) 325 9400

- Shared passive infrastructure such as sites, buildings, masts.
- Shared active infrastructure such as power systems
- Roaming arrangements that support the ability for a mobile user to automatically access home data services, when travelling outside the geographical coverage area of their home network, by means of using a visited network.
- Fixed broadband (naked xDSL for example) costs be accurately determined and realistic wholesale costs provided for service providers, for both passive infrastructure (the service provider provides the active multiplex equipment and probably the wholesale internet access) and for complete active services at wholesale prices.

It is necessary that the costs for passive and active infrastructure sharing be accurately assessed to ensure a 'cost plus' access is achieved so service providers can offer competitive retail services over wider geographies.

Bmobile agrees that government should monitor and report on pricing trends for entry-level broadband services. The tracking of services described in Figure 4 of the Consultation Paper is useful, although other entry-level services may be introduced by service providers as they see market demand evolve and so reporting needs to be flexible.

Figure 4 describes two similar services in mobile handset-based and computer-based broadband services that are tending to merge due to the use of smart phones and tablets as modems to connect computers, in addition to providing broadband connection for the access device itself.

These service types might be described simply as mobile based broadband services with two download options as shown in Figure 2 in the Consultation Paper (but not in Figure 4 of the Consultation Paper) to recognise that handset based entry-level services will require a lower download limit (and price) than computer based entry-level services.

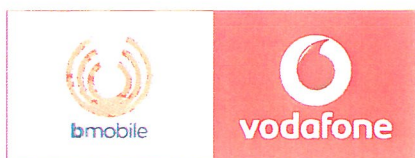
We have suggested another entry-level category of 'family' access for both fixed and mobile services that provides greater download for multiple users on a single broadband access.

**Question 3:** What are your views on the appropriateness of the parameters in Figure 4 for the purposes for selecting from, and standardising, the least expensive products of different licensees for the purposes of assessing the affordability of entry-level broadband services?

In general terms we agree that Figure 4 sets out practical minimum performance for entry-level broadband services. Our comments on Figure 4 are as follows:

- Entry-level mobile broadband services need to be identified and allowed to develop through competitive market activity or where appropriate through accurate cost assessment for declared services.
- Fixed broadband services may need base capital and operational costs to be driven by a regulated cost plus approach where there is a lack of wholesale competitive pricing evident.
- There may be a need for another entry-level service as discussed earlier, anticipating a family access to a single fixed or mobile service.

Our table 1 summarises our interpretation of Figure 4 from the Consultation Paper, with some suggested amendments:



Bemobile Limited  
 Ground Floor, Bemobile Limited  
 Section 38 Lot 32, Waigani Drive  
 PO Box 1055, Waigani  
 NCD, Papua New Guinea  
 Tel: (675) 325 9400

Entry-Level Broadband Service	Fixed Broadband		Mobile Broadband		
	High Capacity (Computer)	High Capacity (Family)	Low Capacity (Handset / Tablet)	High Capacity (Computer)	High Capacity (Family)
User	Residential				
Commitment Period	No comment - a commercial decision for the service provider				
Payment Option	No comment - a commercial decision for the service provider				
Download Speed ( $u < v$ , and $x < y < z$ )	u	v	x	y	z
Monthly Data Usage ( $a < b$ and $d < e < f$ )	a	b	d	e	f
Pre-paid Validity	No comment - a commercial decision for the service provider				

Table 1 – Entry-Level Broadband Assessment

## 7 Conclusion

Papua New Guinea will benefit economically from reducing entry-level broadband services.

Where competition is evident in the market, prices are similar and reduce where input costs can be reduced.

Broadband services will be most widely delivered in Papua New Guinea through mobile networks due to the lack of cable based services for most of the population. This is where most focus from government on reducing service provider input costs will reduce entry-level broadband costs.

Input cost reductions can be supported by government through the initiatives discussed in Section 6 of this document.