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18 September 2020

Mr. Charles Punaha
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Frangipani Street, Hohola
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By email: consultation-submission@nicta.gov.pg

Dear Mr. Punaha,

Submission on NICTA's public consultation on Reference Interconnection Offer from PNG DataCo Limited on various wholesale access services

This submission is in response to the discussion paper issued on 19 August 2020 relating to pricing and processes proposed by PNG DataCo Limited (DataCo) for international internet bandwidth provision to wholesale customers. This submission has been prepared by the following three authors: Dr Amanda H A Watson of Australian National University, Mr Picky Airi of Divine Word University and Mr Moses Sakai of the University of Papua New Guinea.

The discussion paper has been reviewed and this submission is provided for NICTA's consideration. A key concern of our submission is whether DataCo's offer will lead to improved pricing for consumers. Our submission contains six components, as follows: background, relevant research findings, our comments on internet pricing, our feedback on the discussion paper, our position, and a reference list. If you have any query regarding this submission, please contact Dr Amanda H A Watson using the contact details provided above.

Yours sincerely,

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Background

The subject of the current public consultation process is a discussion paper. Made available by the National Information and Communications Technology Authority (NICTA), the discussion paper begins with material prepared by NICTA and the bulk of the discussion paper consists of a Reference Interconnection Offer from PNG DataCo Limited (DataCo).

Before turning to specific points addressing the discussion paper, this submission will provide some pertinent background information drawn from literature on the contemporary situation in Papua New Guinea (PNG).

Contemporary international development literature and public policy discourse frequently include discussion of the potential or actual benefits of internet access and use. The internet can be used by governments to offer services to citizens and businesses (Cullen & Hassall 2017). The internet can also be used by businesses to improve productivity, for instance through the use of cloud computing (Williams 2019).

To date in PNG, internet access has been limited and unreliable, speeds have been slow and pricing has been expensive (Hogeveen 2020, p. 21; The National Research Institute & Deloitte Touche Tohmatsu 2016). High pricing has been a major constraint holding back uptake of digital technology (Highet et al. 2019; Williams 2019). Lack of affordability has been a key factor delaying development of a digital economy and the digital transformation envisaged during discussions linked to and during APEC 2018 (Highet et al. 2019). A related issue is that government websites in PNG tend to be basic and offer limited functionality (Daniel 2016; Hogeveen 2020), with the exception of the Immigration and Citizenship Authority's e-VISA service (Hogeveen 2020, p. 20).

In PNG, internet users tend to use mobile telephones, rather than laptop or desktop computers (Watson 2020). The GSMA's mobile connectivity index looks at pricing, as well as other factors such as infrastructure, content, ownership rates and user skills (GSMA 2019; Watson 2020). It rates PNG's mobile internet connectivity as better than neighbouring Solomon Islands, but poorer than other Pacific nations such as Vanuatu, Fiji, Samoa and Tonga (GSMA 2019). The index has data on 165 countries and PNG is ranked 121st, meaning there are 44 countries with weaker mobile internet connectivity and 120 countries performing better (ibid.). In short, internet uptake in PNG has been limited to date, with roughly one million internet users (Highet et al. 2019, p. 7).

Two undersea cables stand to increase substantially the internet bandwidth available in PNG. The Coral Sea Cable from Sydney, Australia, to PNG was completed late in 2019 and was predominantly funded by the Australian government (Coral Sea Cable System n.d.; Watson, Airi & Sakai 2020; Williams 2019). The Kumul Submarine Cable is a domestic cable throughout PNG, funded through a loan from China's EXIM Bank, which was completed recently (The National 2020; Watson 2020; Watson, Airi & Sakai 2020; Williams 2019). Given the establishment of the two new undersea internet cables, there have been predicted improvements in internet pricing (Watson, Airi & Sakai 2020).

Research findings relevant to the public consultation process

Since the first week of 2020, we have been undertaking research to monitor the internet prices that are offered to mobile telephone users in PNG. The primary motivation for this research has been to assess whether the launches of the Coral Sea Cable and the Kumul Submarine Cable have led to any discernible decrease in the pricing being offered to consumers. Our research findings thus far are relevant to this public consultation process because they focus on the experience of consumers. While we understand that this consultation process is focused on wholesale pricing, the ultimate end users are retail customers and therefore we feel that it is important to foreground the situation of these people. The findings show what has happened in 2020, since the two cables were completed. We present the research method below, followed by the limitations of the research and the findings thus far.

The research has involved systematically collecting pricing data using Unstructured Supplementary Service Data (USSD) menus in mobile telephones. Customers use these menus by selecting, for instance, '1' to 'Buy a plan' then '1' for 'Data plan' in the next list of options received and so on. The advantage of using USSD menus to collect data is that this method provides accurate, up-to-date information and can capture temporary promotions. By contrast, collecting newspaper advertisements or pricing information from company websites or other sources may not be as reliable.

This research does not capture the pricing structures of all internet service providers operating in PNG, such as those offering services to businesses, households, universities and so on. Nonetheless, it captures the pricing structures relevant to a substantial portion of the country's internet users when they access the internet through mobile telephones. Over three quarters of mobile telephone connections in PNG are prepaid and less than a quarter are post-paid (Highet et al. 2019, p. 19). This research captures pricing available to prepaid customers, while post-paid clients may be offered different pricing structures.

This research has found that there has been no change in mobile internet pricing since the start of 2020. Despite repeated promises and predictions of reductions in internet prices in PNG, there have been no changes in the prices offered during 2020 at the retail level. In other words, despite many public pronouncements, the laying of the undersea cables has not yet led to any benefit for consumers. For details of findings for the first half of 2020, see Watson, Airi & Sakai (2020). We will continue to undertake weekly monitoring of mobile internet pricing using USSD menus and will report on this regularly (most likely, every six months).

Our comments on internet pricing

Our main motivation for making this submission is to encourage all of the parties involved to strive to ensure that consumers can enjoy the benefits of reduced internet prices in the near future. Despite repeated promises in various forums, which have been disseminated by media outlets, the launch of the two new internet cables has not yet led to any improvement in the data prices available to mobile telephone users across PNG. We have established this through our research, as described above. Thus, we are keen to encourage all parties to strive to address pricing, with a view to ensuring that decreases in prices for consumers can be forthcoming.

We understand that the present discussion paper addresses wholesale pricing and not retail pricing. It seems to us that several factors will influence the possibility of retail price reductions. These factors could include the need to recover costs from the new domestic cable, market structure, market competition, the extent to which the PNG Internet Exchange Point is operational, whether popular websites can be hosted and/or cached in PNG, and existing supplier contracts. We understand that some of these factors fall outside the scope of the present consultation process.

We are concerned about the proposed move from maximum prices to maximum average prices. This will make it difficult for internet service providers to determine whether they are being charged a fair price for the service they are receiving. It will also make the situation confusing for average end users (retail customers). It is recommended that NICTA establish an online portal through which retail consumers can compare prices. This would assist consumers in their purchasing decisions and with judgements about internet usage. The portal could also explain in accessible terms the relationship between maximum average wholesale prices, if these are adopted, and retail prices.

While it may be peripheral to the present consultation process, we note that one mechanism that can potentially reduce transit costs between internet providers is effective operation of an Internet Exchange Point (IXP) (Nomikos et al. 2018). It may be that such savings could be passed on to end users. NICTA initiated the establishment of an IXP in PNG but its long-term ambition was to have ownership of the IXP taken over by the internet service providers involved (Watson et al. 2017). DataCo joined the IXP in 2018 (National Information and Communications Technology Authority 2018). The relevant page of the NICTA website provides meeting minutes up to and including 2017 (National Information and Communications Technology Authority n.d.). It would be helpful for the general public and interested observers to have the

minutes of recent meetings made publicly available so that there is transparency about what has happened regarding the IXP during the period 2018 to present.

Our feedback on specific sections of the discussion paper

Our submission will now address several parts of the discussion paper.

The cover letter in the Reference Interconnection Offer indicates that service agreements would be valid for three years, while the 'Telecommunication Service Order Form' has a term of 12 months. By contrast, schedule 1 to the discussion paper published by NICTA on 24 July 2020 indicated that there would be decreases in maximum average prices per annum over the next several years. It is unclear how or whether the anticipated annual price reductions can be achieved if the present offer from DataCo is accepted. Is there a mechanism for ensuring that the pricing is reduced at the end of each 12-month-long service term? Will the approach be to achieve anticipated price reductions annually through a new customer 'Telecommunication Service Order Form' and accompanying 'Service Pricing Offer'? Will NICTA be able to confirm that this occurs?

As we understand it, a pricing review is to take place each year, beginning in 2021. As is explained in section 3.7, DataCo's models contain information on its costs, including commercially sensitive information. The DataCo network comprises fixed costs and, consequently, pricing is sensitive to demand levels (section 3.7). A pricing review would take into account all relevant considerations, including actual demand for the service in the previous period. Could DataCo be more specific as to what other external factors, apart from demand, will increase or decrease pricing? Will NICTA have adequate oversight of or involvement in the pricing review process?

In the Master Service Agreement between DataCo and a customer, clause 15(a) refers to collection of information from retail customers and end users. Sub-section (i) indicates that collection of data would be for the purposes of providing a service or improving the service. Sub-section (ii) indicates that collection of data would be for use in market research and/or marketing. Sub-section (iii) indicates that collection of data would be for checking the credit worthiness of retail customers and end users. Sub-section (iv) would apply if there were a court order. We have no concerns about (i), (ii) or (iv). However, sub-section (iii) raises questions for us as it seems to be suggesting that DataCo would be able to collect payment data from end users (everyday consumers). We would like to see end users removed from sub-section (iii).

In section 13 of the 'Service Level Terms and Conditions', we feel that it may be appropriate to mention specifically the Cybercrime Code Act 2016.

Our position

Our position is that NICTA should carefully consider whether the Reference Interconnection Offer from DataCo is likely to lead to reduced retail internet prices for consumers before it determines whether to accept or reject the proposal. If the offer is likely to lead to price reductions for end users, NICTA may wish to accept it. If the offer is not likely to achieve such an outcome, we would suggest that it be rejected.

If NICTA decides to accept this offer from DataCo, we would like to see that there are thorough accountability mechanisms in place. These mechanisms could involve monitoring of wholesale internet pricing. We would also like to see systematic processes put in place for regular checking of retail pricing. Our modest research project on mobile internet pricing will continue. It could potentially be expanded or incorporated into a larger process of regular monitoring. It is important that the regulator, NICTA, can effectively monitor and regulate internet pricing, particularly as prices have to date been high and internet uptake has been relatively low. An independent monitoring process or a process overseen by NICTA may assist to achieve positive outcomes for consumers across PNG.

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