



## **RESPONSE TO COMMENTS REPORT**

NICTA staff's response to the comments received in response to the Consultation Paper on the Costs and Benefits of implementing Mobile Number Portability in PNG

*Issued on 06 October, 2017*

## Contents

1. Introduction.....	3
2. Conclusion .....	4
3. Overview of Primary comments received and NICTA staff's consideration of and response to those comments .....	5

## 1. INTRODUCTION

On 7 October 2016, NICTA commenced a public consultation seeking submissions on the matter of Mobile Number Portability (MNP) and a Discussion Paper entitled “*Mobile Number Portability for PNG: Discussion Paper on costs and Benefits*”. The paper was prepared by consultants Incyte Consulting Pty Limited, who were retained by NICTA for this project.

NICTA made it clear that the discussion paper and the tentative conclusions and recommendations that it contained were the consultant’s, and that NICTA had not formed a view on the costs and benefits, and general desirability, of implementing MNP in PNG. Further, NICTA also made it clear that it would form its view of the matter after taking account of the comments of stakeholders received as a result of the consultation process.

The deadline for submissions was finally set as 3 February 2017.

Written submissions, in alphabetical order of organisation, were received from:

- Bmobile-Vodafone PNG Limited (“Bmobile”)
- Digicel (PNG) Limited (“Digicel”)
- Independent Consumer and Competition Commission (“ICCC”)
- Telikom PNG Limited (“Telikom”)

Bmobile made two submissions on two different sets of issues relating to MNP. Both were received in time. For ease of reference the first will be referred to as Bmobile-1 and the second as Bmobile-2.

Those submissions were made available on NICTA’s public register. Only in the case of Digicel was there a claim to confidentiality and an offer to provide a redacted version of the submission.

This report provides a summary of the key comments and issues that were raised through these submissions and the NICTA staff responses in each case.

## **2. CONCLUSION**

The submissions contain a range of observations that have been very useful in adding further clarity to the subject and more detail than was previously available to NICTA in relation to the potential implementation of Mobile Number Portability (MNP) in PNG.

Not all of the submissions sought to respond to the specific questions that were posed in the public consultation paper. Therefore key points made in each of the submissions are discussed in turn and a table has then been compiled which summarises the position of each of the organisations in relation to each of the questions, as far as NICTA is able to do so from the submissions.

NICTA will now follow the procedure set out in the National ICT Act 2009 and form its views and make its recommendation on the matter to the Minister.

Once again, NICTA thanks those that made submissions for their time, effort and assistance in participating in the consultation.

### 3. OVERVIEW OF PRIMARY COMMENTS RECEIVED AND NICTA STAFF'S CONSIDERATION OF AND RESPONSE TO THOSE COMMENTS

Given the length of the submissions received, NICTA staff have not (in the table below) responded directly to every point or comment that was made by the respondents in their submissions. However, even if not specifically addressed below, all comments received were considered and have been taken into account.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
1	Bmobile-1	Page 1: Q 1 - Will MNP enhance competition and benefit PNG consumers and the PNG economy?	<p>"... as the Consultants' report correctly details the PNG market does not currently have adequate competition and, as such, the 'type of' and 'how' MNP is introduced into the local PNG market needs to be seriously considered if it is to realise the ambition of consumer and competition benefits for the PNG economy.</p> <p>"If we get MNP wrong it will only worsen the current dominant competition situation in the PNG mobile market to the detriment of the PNG consumer and economy."</p>	Agree.
2	Bmobile-1	Page 1: Q 2 - Should the MNP process be recipient-led?	Yes, "as this delivers the most positive consumer porting experience." However, Bmobile adds that "if a Recipient Led model is progressed by NICTA then the relevant level of investment has been made in the current PNG market to ensure that a Recipient Led MNP implementation is supported by true competition in the PNG telecoms market."	Agree with the further qualify cation.
3	Bmobile-1	Page 2: Q 3 - Are the 4 types of benefit in the report and adequate description of the benefits	"The benefits detailed in Section 4 are both at high level and by MNP implementation type and do not consider the wider benefits or benefit detriments (e.g. to the PNG economy) that could accrue depending on the MNP implementation model that NICTA potentially	NICTA staff understand Bmobile to mean that the benefits do not include wider benefits to society or the economy at large. This is true. The benefits considered in the paper are "first order" benefits and not the benefits that might occur due to second order impacts. NICTA staff understand Bmobile to be saying that not

No	Sub-mission	Reference or subject	Summary of comment	NICTA staff's response
			takes forward.”	all benefits or disbenefits are captured in the analysis in the paper.
4	Bmobile-1	Page 2: Q 4 – Is the description of once only and continuing costs in section 4.2 of the Paper adequate?	Essentially ‘yes’	Noted that no other costs have been identified by Bmobile.
5	Bmobile-1	Page 2: Q 5 – Each operator shall be responsible for MNP set up costs	<p>“... at first sight, the recommendation that operators should be responsible for their own set-up costs would appear to be a sensible one.”</p> <p>“However, as detailed in the Discussion Paper, there are specific PNG market dynamics that need to be considered and if a Recipient Led MNP solution imposed a larger cost, in relation to revenues, on smaller operators we believe NICTA needs to fully consider the implications of this to ensure the relative investment required by smaller operators does not disadvantage them and potentially lead to a less competitive PNG market.”</p>	<p>The proviso to Bmobile’s comment is noted. It is also noted that in the Discussion Paper the Consultants had it in mind that smaller operators might limit the impact of disproportionately high set up costs by having an option not to request import of numbers under some of the options being considered.</p> <p>The Consultants have not proposed, not has Bmobile explicitly stated, that smaller operators should be subsidised in relation to set-up costs in some way.</p>
6	Bmobile-1	Page 2: Q 6 – Should set-up costs be recoverable from consumers or other stakeholders?	“As detailed in the Discussion Paper the actual flavour of MNP taken forward by NICTA will determine the burden of set-up costs on operators; and if this meant there would be high set-up costs for all operators then set-up cost support for non-dominant operators, we believe, would need to be fully considered by NICTA.”	Bmobile has not answered the question. There is no compulsion to answer.
7	Bmobile-1	Page 2: Q 7 – Are the ARPU estimates for each MNO correct or	Bmobile has offered to discuss this matter outside the Consultation response.	This offer will be pursued separately by NICTA staff.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
		current?		
8	Bmobile-1	Page 3: Q 8 – Maximum time for completion of a successful port of a mobile service number	“We agree with the best practice recommendations detailed in section 8.6 of the Discussion Paper and that if MNP is introduced into the PNG market it should be recipient-led and designed to ensure that all individual number ports are handled within one working day unless the recipient operator requests longer.”	Agreement to a one working day maximum is noted and also that the arrangements in the Discussion Paper should lead to this.
9	Bmobile-1	Page 3: Q 9 – Prerequisites for MNP in PNG	Bmobile agrees with the prerequisites and draws “NICTA’s attention to the remedy, detailed by NICTA’s Consultants, to enable the PNG market to ‘Pass’ the Effective Competition prerequisite: ‘there is substantial capital investment in an existing operator’.”	Noted. However the means of passing the effective competition prerequisite is one of two outlined in the report – the other being the introduction of a new licensed operator with substantial capital resources for investment in the market.
10	Bmobile-1	Page 3: Q 10 – Comments on whether the level of competition is currently inadequate in PNG and may lead to reduction in the shares of smaller operators	Bmobile agrees with the assessment.	Noted.
11	Bmobile-1	Page 3: Q 11 – Need to examine tariff transparency issues to ensure callers pay no more than they expect	“We agree that, as in other markets, the introduction of number portability needs to be supported by tariff transparency to ensure clarity over costs so callers can make fully informed decisions with regard porting from one supplier to another supplier and do not therefore have to pay more than they expect.”	It is not clear from its comment what Bmobile means. The tariff transparency issue relates to callers to numbers that may have been ported, especially if the caller believes that there are on-net calling benefits which porting might remove. The issue is not about the porting decision as such.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
12	Bmobile-1	Page 3: Q 12 – Would consideration of MNP as a user right impose unfair and unsustainable financial burdens on Bmobile and Citifon.	Bmobile notes that the detail around the trade-off of a rights perspective and the financial burden that might result for smaller operators needs further exploration by NICTA.	Noted. Bmobile has provided none of the further detail that it says might be required.
13	Bmobile-1	Page 4: Q 13 – Digicel can afford implementation of MNP	Agreed	Noted
14	Bmobile-1	Page 4: Q 14 – A future new entrant should be able to afford cost of MNP	“We agree that a future New Entrant would be able to absorb its lower (than current operators) cost of providing Number Portability as part of its overall market entry investment and that any new entrant would see number portability as an essential function of any new market it wished to enter for the reasons that NICTA’s Consultants have said – as an essential tool for competing with the established operators.”	Noted
15	Bmobile-1	Page 4: Q 15 – Views on options set out as Cases 1a, 1b, 2, 3a and 3b in Section 11	<p>Bmobile considers that the options are not mutually exclusive, especially over time.</p> <p>“NICTA could progress Case 1b and then in the time frame detailed in the Discussion Paper progress Case 2 as part of a wider published, for example, 10 year strategic plan for the PNG telecoms market.</p> <p>“This would allow the competition issue in the PNG market to be addressed and a degree of competition maturity to be established prior to, if NICTA’s market assessment says it would benefit the PNG market, a new</p>	<p>Agreed that the cases (scenarios) are not mutually exclusive, and, in particular, that one approach could morph into another over time.</p> <p>Facilitating increased competition (or competition maturation) in the shorter term may well be important before taking a decision that might involve a new entry to the market.</p>



No	Sub-mission	Reference or subject	Summary of comment	NICTA staff's response
			entrant entering the PNG mobile market.”	
16	Bmobile-1	Page 4: Q 16 – Views in the approach that might be taken to Fixed Number Portability (FNP)	“No comment”	Noted.
17	Bmobile-1	Page 4: Q 17 – Is the penetration of fixed services insufficient to justify FNP in PNG?	Yes, it is insufficient	Noted.
18	Bmobile-1	Page 5: Q 18 – Competition in fixed services will be inadequate for the next 5 years and there is no reason to consider FNP	Agreed	Noted
19	Bmobile-1	Page 5: Q 19 – Could MNP arrangements be extended to include FNP at a later date?	Bmobile considers that the arrangements for number portability should be the same irrespective of service type, so the answer is ‘yes’.	Noted.
20	Bmobile-1	Page 5: Q 20 – Would there be benefits in implementing MNP and FNP at the same time?	Bmobile hedges on its direct answer, but notes that if a certain level of competition is needed in both markets before number portability might be progressed then “this means that the easier market, mobile, to introduce competition into would need to wait a long time, for competition in the fixed market to catch up, before number portability was implemented.”	This is an important observation because it suggests that the benefits foregone through delaying MNP might be greater than any costs associated with joint MNP and FNP implementation at a later date.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
21	<b>Bmobile-2</b>	Additional context for NICTA to consider for MNP implementation	<p>1. NICTA needs to consider the patterns of behaviour of “where operators in certain countries have deliberately their regulator to slow down and in some cases prevent the introduction of MNP”.</p> <p>2. “NICTA should therefore request its international consultants to provide examples of best practice with regard the implementation of MNP and, more especially, examples of bad practice where a regulator has not effectively managed its operators (dominant or otherwise). We note that the Discussion paper did not cover this and as such we feel that the discussion paper was the poorer for it.”</p> <p>3. “Of particular focus for NICTA should be countries where Digicel operate, e.g. Jamaica, Cayman Islands, Trinidad &amp; Tobago, French Guiana, etc., as these will provide clear examples of how Digicel will engage with NICTA with regard NICTA's programme for implementing MNP in PNG.”</p> <p>4. Bmobile set out questions that it would like answered including “what is Digicel's corporate stance on MNP”.</p>	<p>The points made by Bmobile are clear enough. Bmobile wants to know that if a decision is made in favour of MNP it will be implemented expeditiously by NICTA and that no obstruction will be tolerated. This is NICTA's view.</p> <p>The Discussion Paper had as its purpose the examination of costs and benefits of introducing MNP in PNG. Reference was made to the experience of other countries and the circumstances in which decisions to proceed with MNP were made in those other countries. It was not the purpose of the Paper to discuss good and bad implementation practice or to consider the role of a specific operator in other countries. Bmobile is free to make its own enquiries and recommend specific solutions to problems that might arise in PNG.</p> <p>If a decision is made to proceed with MNP in the near to medium term in PNG then the Consultants will be asked to give their advice on matters going to implementation.</p> <p>In relation to the last point, NICTA is not concerned with the corporate stances of any company to MNP. NICTA's concern is with the views of existing stakeholders in PNG to MNP in PNG. For that reason all of the submissions, including that from Digicel, will be published on NICTA's website to enable others to appreciate the range of viewpoints that have been expressed.</p>
22	<b>Digicel</b>	Pages 1 and 2: Paras 2 and 3 – Prior correspondence	Digicel sets out its view on prior correspondence, preceding the Public Consultation period, in which Digicel sought information of a kind that would be	Digicel's comments are noted but the construction that it has put on preceding correspondence is incorrect. It is noteworthy that Digicel provided no assistance

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			covered in the Discussion Paper when completed.	whatsoever when information was sought to enable the Discussion Paper to be as well-based as possible.
23	Digicel	Page 2: Para 4 – Without prejudice	"Accordingly, this submission is provided on the basis that it is without prejudice to Digicel's position that it has not been accorded natural justice and procedural fairness in this matter and that it must reserve all rights in that regard."	Responding to a request for comments to a public consultation discussion paper does not result in any compromise of any position previously or currently held. Insofar as this comment suggests that Digicel has not been accorded natural justice and procedural fairness, or the same opportunities to make comments as all other stakeholders, the suggestion is incorrect and without merit.
24	Digicel	Page 2: Para 5 – Overall position on MNP	"Digicel does not object to MNP in principle and it is widely accepted that MNP removes a barrier for consumers to switch mobile networks. However, MNP is not costless and the economic benefits of removing that barrier need to be weighed carefully against the costs of implementation and the potential detriments that will arise from it."	Noted and agreed.
25	Digicel	Page 2: Para 6 – Changing focus and incentives of operators	"The implementation of MNP also changes incentives for network operators, as it is likely to alter the dynamic of competition, such that operators focus more on competing against each other for existing customers and less on growing the network into new areas. This is a very significant issue in PNG."	It follows that facilitating switching between competitors will encourage greater emphasis on competing for existing customers, but whether this reduces the focus on growing the network into new areas is an assertion that is not supported by evidence in the submission.
26	Digicel	Page 2: Para 7 – Completion of network build	"... Government and regulatory policy needs to remain firmly focused on encouraging operators to invest in coverage and capacity expansion. The introduction of MNP before the network build is complete or the market is ready for it will harm investment and delay the benefits that the people of PNG can expect from	Government and regulatory policy is intended to encourage the availability of quality and affordable mobile to services to all citizens of Papua New Guinea, by establishing and maintaining an effective competitive environment which benefits consumers but also encourages robust competition.

No	Sub-mission	Reference or subject	Summary of comment	NICTA staff's response
			more widespread telecommunications services.”	<p>Stakeholder feedback indicates that the current Papua New Guinea mobile market is not competitive and consumer choice is constrained by Digicel's apparent dominant market share and high pricing and ARPU.</p> <p>The report revenue and capital analysis and benchmarking shows that the minimum and maximum projected MNP investment for Digicel only account for capital intensity metrics of between 0.24% and 2.09% and adopting least cost options for existing challenging operators would result in capital intensity metrics of between 0.02% and 0.97%.</p> <p>The global capital intensity benchmark is considered to be around 16% and thus it is concluded that the implementation and launch of MNP should not have a diversionary effect on other network expansion investments.</p>
27	Digicel	Page 2 : Para 8 – Literacy rate in PNG	Digicel notes that PNG has the 7 <sup>th</sup> lowest literacy level of the 25 countries listed in a table that Digicel has included in its submission and notes that this “is a useful proxy for understanding the challenges that will be faced with managing the porting process with customers.”	It is not at all clear that the reported literacy rate is a proxy for managing the porting process with customers. There is no suggestion that porting should only be available to those who are deemed to be literate. Therefore the challenges of providing information on porting issues and processes need to be met. Digicel has not made the case about how this affects the feasibility of MNP.
28	Digicel	Page 3: Para 9 – PNG's readiness for MNP	“In short, PNG due to the unique combination of circumstances that exist, still lags behind other countries on all of these metrics [in the table] and simply not ready for the imposition of MNP.”	<p>The level of mobile competitiveness in PNG has been identified in the Discussion Paper as an issue affecting MNP-readiness. However Digicel has not argued the case on the factors that it has highlighted.</p> <p>Digicel has added non-relevant benchmark countries,</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>such as Ukraine and Moldova.</p> <p>Digicel has failed to consider the relatively high-level of ARPU compared to GNI when compared to other developing benchmark countries, as evidenced by Figure 6.2 in the report. Assessing ARPU against GNI provides a strong indication that relative market pricing in Papua New Guinea is inflated by the lack of a robust competitive landscape, which may be enhanced by the ability of existing consumers to move their service to a more attractive and competitive provider.</p>
29	Digicel	Page 3: Para 10 – Changing relevance of MNP over time	Digicel asserts that “changes in technology and consumer communications preferences (multiple subscriptions/social media/etc) and the use network specific applications such as mobile money also means that number portability is becoming less relevant over time and the ensuing customer benefits less certain, especially in developing countries.”	This assertion is not supported by any evidence or detailed analysis or argument. It is contrary to the level of support revealed by customers in the NICTA customer survey.
30	Digicel	Page 3: Para 11 – Specific circumstances that exist in PNG	“Digicel submits that insufficient attention has been given to these important issues or to the specific circumstances that exist in PNG. These circumstances include a very challenging operating environment, high cost of rolling out network infrastructure and services, difficulties associated with determining customer identities and low income and literacy levels. These challenges are illustrated by the cost and difficulty of implementing the SIM registration programme that is currently underway in PNG.”	<p>The SIM registration programme is undoubtedly a challenge but the linkage to MNP feasibility has not been made.</p> <p>The point about the challenges associated with the PNG environment is that they will affect the costs and benefits and be capable of being assessed through the medium of that analysis.</p> <p>Digicel has not considered that many of the benchmark markets share and demonstrate their own and similar operational challenges. Digicel has not demonstrated why Papua New Guinea is unique in the challenges it has identified, in support of its assertions.</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
31	Digicel	Page 4: Para 13 – Demand for MNP in PNG	The list of 118 countries in Appendix A of the Discussion Paper is not a true indication of the situation as it affects PNG because only 22.6% of the countries are lower-middle or lower income countries.	<p>Appendix A is intended to provide a global overview that regulators and consumers across the world understand the right for users to be able to move their number and services. The table shows the global trend over the past 20 years the introduction of MNP has migrated from developed to developing markets across virtually every region. However, page 11 of the report stated that countries and regulators may have different reasons for introducing MNP based on specific market dynamics and regulatory/ competitive objectives.</p> <p>Digicel appears to have misunderstood the purpose of Appendix A. Its purpose is to indicate the wide diversity of situations in which number portability has been implemented or is being planned.</p>
32	Digicel	Page 4: Para 14 – Countries with MNP	“... only 18% of countries with lower-middle or low incomes economies had implemented MNP by the end of 2015 while a further 11% planned to do so in 2016 or 2017. This is significantly different from the “more than half of the world’s countries” so described by the NICTA Consultants at page 11 of the Discussion Paper.”	See last response. The comment at page 11 remains true. More than half of the world’s 195 countries have implemented or planned for MNP in 2016 and 2017. That was the point being made.
33	Digicel	Page 4: Para 15 – PNG would be out of the mainstream	“This means that, contrary to what has been implied in the Discussion Paper, NICTA and PNG would not be joining the mainstream of developing countries by pursuing the adoption of MNP. On the contrary, PNG would be joining a relative few countries that have only recently begun to implement MNP and where the outcome of their endeavours is far from certain.”	Digicel’s assertion is incorrect since the global and developing market insight provided in the report clearly shows that the specific market benefits from MNP are being increasingly recognised across a wide range of similar developing markets. For instance, India and Pakistan have benefited from positive porting demand for a number of years and the introduction of MNP is expanding rapidly across Africa and the Caribbean, reinforced by positive experiences seen in markets such as Ghana and Sudan.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>It is evident that NICTA in actively considering the potential consumer and market benefits of MNP to the Papua New Guinea market is aligned to the vision and proactive approach to enhancing the mobile market landscape being shown by a broad range of similar developing countries and regulators/</p> <p>Digicel has failed to provide any justification that that Papua New Guinea will be joining an elite group of developing markets nor that the outcomes of MNP are uncertain.</p>
34	Digicel	Page 4: para 16 – the NICTA consumer survey	“The likely level of demand for MNP has also been overestimated by the NICTA Consultants”, because of heavy reliance on a survey of 117 people from “high value and public sector work market segments”.	<p>In the report, it is noted that the survey was a short and small scale initiative which indicated “reasonable level of consumer interest in MNP”. The report did not set-out to position the survey or its findings as either conclusive or critical to the core recommendations.</p> <p>It is noted that Digicel have not produced any survey of its own or evidence contradicting the trends evident in the NICTA survey.</p>
35	Digicel	Page 5: Para 17 – Number of active subscribers	Digicel notes that the number of subscribers has been over-estimated significantly. It had 2,670,000 active subscribers on its network as at November 2016.	<p>The estimated subscriber figures have been calculated from ITU statistics reconciled with subscriber data provided from some challenger operators.</p> <p>The table provided on page of Digicel’s response is based on the ITU 2016 statistics and suggests that there were approximately 3,556 million mobile subscribers in 2016 which aligns to the estimates included in the report.</p> <p>At the time the report was drafted, Digicel had not provided detailed subscriber data and thus the Digicel subscriber base was estimated based on the ITU and</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>competitor subscriber data.</p> <p>Digicel has failed to explain why its own subscriber data conflicts with the ITU data provided in its response. However we have re-run the model on the basis of the new subscriber data provided by Digicel and the conclusions in relation to each of the cases/scenarios hold.</p>
36	Digicel	Page 5: Paras 18 and 19 – Porting rates in lower-middle and lower income countries	Digicel have sourced porting rates from the ITU for the relevant countries mentioned in the Discussion Paper. The average porting rate for 2015 was 1.3%, and declining over previous years.	<p>The porting rates referred to range from 0.01 to 6.8% (in the case of Ghana). 1.3% is not weighted by subscriptions as Digicel suggests. It is the simple average of the rates, rounded down from 1.34%.</p> <p>Digicel has selected benchmark markets who have recently introduced MNP services which are still being established in the market (e.g. Sudan) or are known to be poorly executed (e.g. Kenya, Egypt) with a view to portraying a negative view of MNP demand.</p> <p>However, Digicel's own data shows robust demand for MNP in key benchmark markets of Ghana and India, where the MNP services have been well executed and publicised.</p> <p>The Digicel figures are specifically influenced by the dramatic drop in porting demand in Pakistan during 2015 which was the result of a government restriction of the MNP service related to national security concerns. The Pakistan government restriction has subsequently been lifted following a public and industry outcry.</p> <p>During 2016 and 2017, MNP demand in Nigeria has grown as the NCC has resolved industry issues and strengthened public awareness.</p>



No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>The rapid expansion of NP services across South America has been positively received by consumers with a number of countries showing that MNP demand is robust at 10% + (e.g. Chile) and is growing influencing market competitive dynamics.</p> <p>Contrary to the trend presented by Digicel's selected market benchmarking, actual experience shows that well executed MNP services supported by strong public awareness generate robust and stable porting demand as a result of offering positive consumer porting experience and allowing consumers to enjoy the benefits from moving their number and services to the providers who best meet their needs.</p>
37	Digicel	Page 5: Para 20 – Multiple subscriptions	<p>“The prevalence of customers in PNG who have more than one subscription has also been ignored in the analysis. According to Digicel's own market research, the reason that customers hold more than one subscription is to enable them to cherry pick the elements of each subscription that they find most valuable, which are lower cost calls ... etc.”</p>	<p>Multiple-subscriptions have not been ignored in the analysis, contrary to the suggestion. The Consultants have made estimates in the absence of information from operators. It is noted that Digicel has not provided additional information on this point in its response.</p> <p>Assessment of the current pricing regime in the Papua New Guinea market indicates very significant difference in operator ARPUs but also dramatic differences in On and Off Net Pricing, for instance Digicel pre-pay On Net/ Off Net differential is 40%, compared to 18% for Bmobile.</p> <p>The significant On Net/ Off Net pricing differential could be a key factor in driving multi-SIM usage in the Papua New Guinea market, since Digicel's maintaining high On Net/ Off Net pricing differentials forces consumers to use multiple SIMs to minimise calling costs to different contacts.</p>

No	Sub-mission	Reference or subject	Summary of comment	NICTA staff's response
				Experience from across the world suggests that Multi-SIM usage is indicative of imperfect market competition where by dominant operators use On Net/ Off Net pricing differential to safeguard ARPU and maximise On-Net calling. This appears to be the case for the Papua New Guinea market.
38	Digicel	Page 5: para 21 - SIM locking	“SIM locking is also a common feature of all networks in PNG and the effect of this on customers’ choice to switch networks or port their number has not been considered.”	<p>NICTA and the Consultants are well aware of SIM locking as a practice. Regulatory action will be considered as part of the implementation stage detail for MNP.</p> <p>With the global availability of web based central handset unlocking services, the impact of handset locking (SIM locking as referred to by Digicel) is less of a constraint for MNP services and Recipient operators and consumers are able to get easy access to handset unlocking facilities outside of the MNP Process.</p> <p>There is a small cost for unlocking that has not been factored into the CBA. However, that cost would not be incurred as part of MNP if either SIM locking was prohibited (unlikely) or if SIM locking was limited to a period of subscription (more likely).</p>
39	Digicel	Page 6: para 22 - Customer category distribution	“The NICTA Consultants have provided no reasoned basis for their apparently arbitrary distribution of customers between the four types of customer described in Figure 11.2 of the Discussion Paper. Nor have the NICTA Consultants provided any basis for the weightings that have been used in Figure 3 or any of the assumptions in Figure 11.4”, making the subsequent analysis “mere conjecture and certainly should not be used as a basis to impose regulation on Digicel that	The distribution of customers between the four customer types has been on the basis of conjecture based on best available data. The distributions were not arbitrary. It is noted that Digicel has provided no alternative view of the distribution.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			would cost it many millions of Kina.”	
40	Digicel	Page 6: paras 23 – 26 - Assumptions that subscribers have only one SIM	“Digicel cannot understand how the NICTA Consultants could overlook the clear existence of multiple SIM ownership in PNG but agrees that, by ignoring it, they have over-estimated the benefits arising from MNP to PNG.” The over-estimate is not “slight” as stated by the consultants.	<p>The dual SIM situation is potentially a major factor. The mini survey by NICTA found that 22% of the people interviewed had dual SIMs.</p> <p>Compared to other countries such as Botswana, the incentives for dual SIMs in PNG are lower because the on-net discounts, although significant, are less extreme. The effect of dual SIMs has been taken into account in the porting rates considered.</p> <p>The 77% figure provided by Digicel purports to be from NICTA’s consumer survey, but this is a misunderstanding on Digicel’s part. Digicel provides no evidence for its own 90% figure of dual-SIM ownership.</p> <p>Digicel is also correct in saying in paragraph 26 that multi-SIM users will not benefit from type 1a and type 3 direct porting benefits. However, Digicel has not recognised the fact that multi-SIM users will specifically benefit from type 1B and 2 benefits, i.e. better service quality and reduced costs from not having to maintain multiple numbers/ services since MNP could encourage service quality and value enhancements by eroding On Net/ Off Net pricing differentials.</p> <p>Experience from across the world suggests that following the introduction of MNP, multiple SIM usage drops significantly as On Net/ Off Net pricing differentials are eroded and consumers focus their usage of their main number, that is, the number used to receive incoming calls rather than secondary SIMs used purely for outbound calling.</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
41	Digicel	Page 7: para 27 - Impact of multiple SIMS on estimate of benefits	“Removing or substantially reducing the type 1A and type 3 benefits considerably reduces the benefit-cost ration of all options that the NICTA Consultants analyse, and only cases 3a and 3b (where Digicel faces and obligation to port out numbers ion request from a new entrant) would have benefit-cost ratios significantly greater than one.”	Case 3 is clearly better than the others.
42	Digicel	Page 7: para 28 - Type 1B benefits	“The type 1B benefits estimated by the NICTA Consultants have also been overstated. If calculated correctly, even when all of the other NICTA Consultant’s assumptions are retained, the average type 1B benefit per customer is 31 Kina. This is only 16% of the per-customer type 1B benefit estimated by the NICTA Consultants.”	Please see item 43 below
43	Digicel	Page 7: para 29 - Type 1B benefits (continued)	<p>Digicel notes that type 1B benefits are the greatest contribution to quantification of benefits. Digicel claims that the method used by the NICTA Consultants – 80% of the cost of maintaining basic connections to two mobile networks for two years (192 kina) – significantly over-estimates benefits of this type.</p> <p>“b. The fact that such customers do not switch networks without MNP means their costs of switching are greater than the gross benefits to them of switching. The average costs that a customer bears to switch networks in the absence of MNP were estimated at 62 Kina, as part of the estimation of type 1A benefits by the NICTA Consultants. Customers who do not switch networks without MNP obtain a gross benefit from switching of, at most, 62 Kina, otherwise they would have switched voluntarily without MNO. Most such customers will</p>	<p>NICTA agrees with Digicel's comment that subscribers will switch only if they perceive the benefits to exceed the costs. With respect, NICTA has the impression that Digicel in its comments and in its footnote has misunderstood the analysis.</p> <p>The figure of 62 Kina is the weighted average benefit for Type 1A subscribers (those who switch anyway) and they are calculated as <i>avoided costs</i>. NICTA does not understand why Digicel has taken the average benefit of half of this as the figure is already an average.</p> <p>The equivalent figures for those who do not switch without portability (Type 1B) would be much higher and for some would be very high indeed. Instead of trying to estimate those figures we have used the alternative approach of estimating the cost of dual accounts.</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>have a gross benefit of switching of less than 62 Kina.”</p> <p>“c. Assuming gross benefits are evenly distributed between zero and 62 Kina, the average type 1B benefit per customer is 31 Kina. This is only 16% of the per-customer Type 1B benefit estimated by the NICTA Consultants. Even if all such customers have the maximum possible benefit (62 Kina), this is only 32% of the per-customer benefit that has been estimated.”</p>	<p>The problem with Digicel’s analysis is confusing a threshold for a decision by one group with the average of costs incurred by another.</p> <p>Consequently the analysis in para 29 c is incorrect.</p>
44	Digicel	Page 8: para 30 - Type 2 benefits through price competition	<p>“The assumptions lying behind the NICTA Consultant’s estimate of type 2 benefits have not been disclosed. These benefits are based on a theory that, by lowering switching barriers, MNP will increase the intensity of competition among mobile networks, which will benefit all consumers even if they do not switch networks. Such benefits are theoretically plausible and are predicted by many economic models of competition. However, a key condition is that market shares of the firms are no too unequal. Otherwise, reducing switching barriers may ‘tip’ the market towards the largest firm and reduce competition. This seems to have been recognised by the NICTA Consultants but does not appear to have been reflected in the analysis that has been undertaken.”</p>	<p>The points made by Digicel are acknowledged in relation to overall price competition where the ability of the mobile operators to compete is limited, and the possibility that price competition to attract and retain customers will be less robust as a result. However the assumptions used are considered to be reasonable given that the Consultants are contemplating MNP only in a situation where either a suitably financed existing operator or new entrant is involved. Also, within the bounds of prohibitions on discrimination, it is expected that competing MNOs will seek to target valuable customers with price benefits that markedly exceed the average % reduction assumed by the Consultants. The assumption is conservative and may considerably underestimate the value of the total benefits through price reductions.</p> <p>Experience from many developed and developing markets across the world suggests that the introduction of MNP tends to encourage discernible enhancements in consumer value, in terms of package content, recharge incentives or even tariff reductions. In some markets tariff reductions of up to 25% are not unusual, but the increased value offered to consumers results in</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>an equivalent increase in usage and traffic.</p> <p>The most noticeable tariff impact that can be attributed in part to the enhanced competitive landscape post MNP is the reduction or disappearance in On Net/ Off Net differential tariffing, for instance, Ghana, Nigeria, and Jamaica etc.</p>
45	Digicel	Page 8: paras 31 and 32 - Digicel's market share advantage	Digicel objects to the Discussion Paper where it talks of potential price reductions and says: "Digicel through its market share advantage and strong nationwide network coverage is able to maintain strong price leadership in PNG, maintaining higher prices than would occur in a more competitive market." Digicel calls the assertion unsubstantiated, unhelpful and unnecessary.	<p>The comment is reaffirmed on all three counts. Digicel is dominant in the mobile services market and has the economic strength to set prices without undue concern about the response of competitors or customers. There is capacity to reduce prices and therefore the comment is relevant to potential price reductions in a situation of increased competitiveness facilitated by MNP.</p> <p>Such dominant behaviour is evidenced by Digicel's ability to maintain On Net/ Off net tariff differentials that are more than double that those of its competitors and significantly increased ARPU.</p>
46	Digicel	Page 8: para 33 - MNP and investment	"The only cases where the NICTA Consultants have been able to show there are net benefits arising from MNP are where either Bmobile makes substantial new investment in infrastructure and becomes more competitive, or where a new entrant joins the market and does something similar. There is no substantiation of either hypothesis or whether the existence of MNP was a pre-requisite to such investment occurring. In either case, the benefits to PNG will arise mainly from the investment itself and any additional benefits arising from MNP relatively to be relatively small by comparison."	Digicel is creating a strawman argument here. There will be an increased willingness for new entrants to enter the market and invest if they are aware that MNP will be available. The same applies to Bmobile. In the latter case reference should be made to Bmobile's submission. The discussion is not between the benefits of new investment v MNP, but how MNP can provide additional incentive for investment. Digicel seems to be creating a false dichotomy.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
47	Digicel	Page 8: para 34 - Costing of benefits and the effects of delay	<p>“Most of the costs of MNP will be incurred up front, while the benefits accrue over time and depend on the volume of porting that occurs. Given that porting volumes depend on a new entrant or Bmobile gaining market share, the timing of these volumes is quite uncertain. A delay of just a few years would significantly reduce the benefits of MNP in present value terms, while the up-front costs would be unchanged. However, the NICTA Consultants do not appear to have considered the impact of delayed timing of porting volumes in its benefit calculations.”</p>	<p>The calculations by the Consultants are based on costs and benefits being expressed in net present value (NPV) terms - a standard approach which addresses the issues that Digicel is raising.</p> <p>This problem would arise only from a delay between the initial investment and the growth of portings. If both are delayed the problem does not arise. The solution is to formulate the requirement such that this risk is minimised.</p> <p>Type 2 benefits are also likely to be more immediate and linked to the implementation investment timeframe as operators adapt to the threat of increased competition and enhance their value propositions to the whole market.</p>
48	Digicel	Pages 8 and 9: paras 35 to 37 - Costs of implementing MNP	<p>Digicel notes that it has not undertaken a detailed cost study of implementing MNP in PNG – but has experience in other countries in which it provides service.</p> <p>“For example, Digicel recently implemented MNP in Trinidad &amp; Tobago, a country that has about one fifth of the population of PNG and half the number of mobile subscribers. In Trinidad &amp; Tobago the cost of network upgrades and project management alone exceeded US\$ 5.9 million and does not take into account the internal management, staff and other resources that have been impacted. This suggests that the NICTA Consultants' cost estimates for PNG are significantly understated. This may be in part because the NICTA Consultants have assumed an overly simplistic view of the deployment of existing networks and that any internal</p>	<p>The lack of information about PNG costs both before the consultation and in Digicel's response is consistent with Digicel not having undertaken a cost study of any kind – detailed or otherwise.</p> <p>Digicel has provided no details to support the figure it cites for Trinidad &amp; Tobago. Nor has it been able to say that the expenditure was solely for MNP. This is important because operators take the opportunity to implement network upgrades concurrently.</p> <p>In any case the Consultants have used detailed information from many other recent MNP implementation that they have been involved in. The suggestion that an overly simplistic approach has been adopted and that local staff and costs have been used is firmly refuted.</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>staff are "local" and will be paid according to 'generic PNG salary benchmark data'."</p>	<p>The consultants are somewhat surprised at the suggested Digicel investment in Trinidad &amp; Tobago. The consultants' experience of NP implementation costs in Caribbean markets in which Digicel operates suggest that the estimated cost of US\$5.9 million is overstated. For instance, the investment by competitor operators in Trinidad and Tobago was significantly less than US\$5.9 million and these involved fixed and non-MNP specific core network upgrades as well.</p> <p>The consultants have assumed that all operators will be required to use local and specialist vendor/ contract staff to support their respective MNP implementation programmes. The cost assessments reflect both internal and external resourcing.</p>
49	Digicel	Page 9: paras 38 and 39 – Capital constraints and budgeting	<p>“The NICTA Consultants also have not considered the implications of capital constraints on mobile operators. For capital constrained operators; as is the case with any normal commercial enterprise, the capital costs for MNP will not be considered as additional to or separate from existing capital budgets, and thus will cause operators to reduce capital expenditure in other areas. That will lead to a reduction in investment and service quality to customers.”</p> <p>Digicel equates the capital requirements for MNP estimated by the Consultants to 18 – 30 cellsites.</p>	<p>This is an argument that has cropped up many times in mobile regulation and never – as in this case – with any supporting evidence. Converting the MNP budget to cellsites is not evidence of any kind, only a change of metric. The experience of the Consultants is that after the introduction of MNP, with the prospect of enhanced price and service competition, operators maintain their capital expenditure to increase capacity to better position themselves for competition.</p> <p>All operators recognise the differing operational, strategic and regulatory demands on annual CAPEX resources, whether these are used to fund network expansions, network/ system upgrades, new product/ service launches or regulatory driven requirements such as Quality of Service enhancements. The report references the globally accepted capital intensity metric for assessing CAPEX levels compared to corresponding</p>



No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>revenues, whereby it is accepted that 16% is considered acceptable. The report analysis suggests that the relative capital intensity for MNP related investments for Digicel will have minimal implications on Digicel's operating CAPEX requirements of between 0.24% and 2.09%. On this basis, the consultants do not believe that the estimated MNP related investments will have an undue impact on Digicel's other CAPEX driven investment programme.</p>
50	Digicel	Page 9: para 40 – MNP operating costs	<p>“The NICTA Consultants have also understated the likely MNP operating costs that are likely to be incurred in PNG. This is because the market is relatively undeveloped compared with other markets in developing countries. This can be seen from PNG's very low GDP per capita and relatively low levels of literacy. This in turn means that the assumptions in relation to retail distribution and the ability to automate porting processes are unlikely to hold true. The result is that the cost per port is likely to be higher and the number of ports is likely to be lower.”</p>	<p>The imperatives to automate the porting process to the greatest extent would seem to be greater in PNG if Digicel's argument about low per capital income and literacy in PNG are to be adopted.</p> <p>Experience from MNP implementations in Africa and India, suggest that operators recognise the importance of MNP service delivery efficiency to ensure effective mass market MNP service access through innovative channel engagement and efficient systems.</p> <p>In such markets, GDP and literacy have been shown to have no impact on the efficiency and effectiveness of MNP service delivery.</p> <p>Digicel's conclusions about costs per port do not follow at all.</p> <p>It is noted that Digicel have had opportunities to supply operating cost data from PNG and similar countries in which it operates and which have MNP – but it has no done so.</p>
51	Digicel	Page 9: para 41 – Regulatory costs	<p>“The Regulatory costs that have been estimated are also implausibly low. Digicel considers that it is simply not</p>	<p>In the Report, it is proposed that NICTA dedicates a senior person to sponsor and oversee the MNP</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>credible to expect only one person from NICTA will be required to be involved in the implementation of MNP and that, once implemented, it will be able to oversee the operation of MNP on a part time basis. The assumptions that have been made also ignore completely the considerable cost, both in terms of NICTA internal resources and external consultants that have already been expended thus far.”</p>	<p>development and implementation programme, but it is assumed that NICTA will outsource the day-to-day programme management and support of the Papua New Guinea MNP programme to experienced NP specialist consultants. The consultant cost element included in the report is based on actual consultancy costs related to other benchmark NP programmes.</p> <p>Similarly experience from other African and developing market NP programmes indicate that where the MNP service has been well designed and executed, the post launch operation of the service is robust requiring only part-time regulator resources to monitor service performance going forward.</p>
52	Digicel	Page 10: paras 42 and 43 – Costs of Bmobile and Citifon	<p>“The costs of Bmobile and/or Citifon have been ignored in the cost assessments for Cases 3a and 3b. This has been done on the basis that the participation of Bmobile or Citifon "would be a voluntary commercial decision where presumably they would foresee increased profits that would outweigh their costs". This statement is entirely speculative and, as discussed below, ignores the real likelihood that Bmobile and Citifon will be compelled to participate in order to mitigate against the competitive losses that would otherwise occur.”</p>	<p>Under Cases 3a and 3b the participation of Bmobile and Citifon in MNP is not mandated and is a matter for their own commercial judgment. It is true that what Bmobile and Citifon might do is a matter for speculation. But it remains a matter for them, and there is no compulsion from any source contrary to the suggestion by Digicel. In these circumstances it is appropriate not to include the costs of these two operators.</p> <p>Digicel's assertion that Bmobile / Citifon costs for Cases 3a and 3b have been ignored is incorrect. Even though Bmobile/ Citifon are not directly involved with or mandated to port numbers under Cases 3a and 3b, there are still requirements for both operators to support pre-MNP launch testing of call routing. For the sake of completeness, Figure 9.4 on page 30 of the report includes reasonable estimated support and testing costs for Bmobile/ Citifon, for cases 3a and 3b.</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
53	Digicel	Page 10: para 46 – User rights and competition approaches to MNP	“The Discussion Paper states that the “user right” form of requirement is the most common form” of MNP but omits to provide any examples at all where the "Competition Requirement" approach has been adopted. Digicel is not aware of any such examples.”	<p>The term “user right” has been included in the report to provide an increasing view amongst regulators across the world that NP or service switching is a consumer right. An increasing number of regulators view that without NP or switching facilities, existing consumers could be at a disadvantage since their number effectively holds them captive to their current service provider because it would be too onerous to notify contacts and update related materials and media.</p> <p>The application of the “user right” or “citizen’s right” concept was first applied to NP/ service switching in the EU Universal Services Directive (2002/22/EU), Article 30, as amended by Directive 2009/136/EC.</p> <p>Since this approach has been adopted by the 28 nations within the EU, the “user right” concept has been considered across a number of countries who have recently introduced NP or are currently considering introducing NP.</p>
54	Digicel	Page 10: para 47 – Legal support for competition approach	Nor does the Discussion Paper provide any legal analysis to indicate that mandating the introduction of a ‘Competition Requirement’ approach would be lawful in PNG. In Digicel's submission it would not. In particular, Digicel considers that the adoption of a "Competition Requirement" approach would be inherently discriminatory and at odds with the Regulatory Principles contained within the National Information and Communication Technology Act 2009 ('Act').”	<p>This is not the place for detailed legal argument. Suffice it to say that NICTA and the Consultants consider that the Competition approach as described in the Discussion Paper is fully compliant with the requirements of the Act.</p> <p>In addition, the Act does not use the term ‘user right’ in relation to MNP and requires a feasibility approach based on a consideration of costs and benefits to be adopted.</p> <p>Section 12 of the report was intended to summarise the potential consumer and market benefits and challenges if the proposed Papua New Guinea MNP service was to</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>be introduced on the basis of either enhancing the competitive dynamics in the Papua New Guinea mobile market, or to address consumer needs to have the freedom and flexibility to move their number and services to the operator which best meets their needs. Section 12 of the report was not intended to imply that the proposed Papua New Guinea MNP service should be progressed based on user right or competition basis.</p>
55	Digicel	<p>Pages 10 and 11: para 48 – Competition approach as set out in the Discussion Paper is wrong in principle and practice</p>	<p>“a. The NICTA Consultants have mistakenly assumed that Telikom and Bmobile would be able to stand apart from the MNP process in the event that a new entrant established itself in the market and took up its option to avail itself of MNP from the Digicel network. In a competitive market they would not be able to do so as that would mean they were much less attractive from a customer perspective. That is because, all other things being equal, a customer would be very likely to switch services to the operator that permitted the customer to retain their own number.”</p> <p>“b. Similarly, Digicel would also be forced to provide “inbound” portability from the new entrant. Otherwise it would not be in a position to ‘win back’ customers that it had lost to the new entrant and make it more difficult for Digicel to compete for any new customers.”</p>	<p>The decision about MNP participation would be a matter for the managements concerned. This involves nothing wrong in principle or in practice.</p> <p>Digicel’s concern is unfounded since the ability to port a number would only be triggered when another operator requests porting and thus consumers would have the decision whether to stay with Digicel or port the alternative operator if their offering is perceived to be more attractive. If the customer subsequently decides that the alternative provider did not meet their expectations then they have the flexibility to port back to Digicel.</p> <p>If either Telikom or Bmobile decide not to participate in the NP service then their commercial decision will have been made understanding that consumers cannot be</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>“c. Customers would become confused as different rules would apply depending on whether they wished to port to or from a network.”</p> <p>“d. Call routing would be complex with bilateral interconnection arrangements being required to be made between network operators. Such arrangements may well be the source of dispute and uncertainty.”</p>	<p>acquired through NP.</p> <p>Digicel would not be forced by regulation to do anything, beyond porting out at the request of the new entrant. Apart from that Digicel's actions would reflect its perception of its best business strategy guided by self-interest.</p> <p>The consultants have assumed in the cost analysis that where Digicel would be required to offer porting out of numbers, it would also be able port numbers in from the requesting operator, assuming Digicel had decided to progress and offer inbound porting.</p> <p>This can be avoided by comprehensive and effective implementation planning and education.</p> <p>The consultants disagree that driving public awareness of which operators are offering MNP and which are not would be a serious challenge to the Papua New Guinea mobile sector, since the public education campaign would clearly differentiate between the operators offering MNP and those who are not participating.</p> <p>The network operators would have no difficulty in understanding the rules. They already operate complex networks.</p> <p>Bilateral routing exists in most markets using the globally accepted ACQ direct routing approach for nationally originated and terminated traffic, since onward routing is still required to transit international incoming voice and SMS traffic. Digicel is aware of the bilateral routing approach from the MNP routing used</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>“e. It is not clear whether Digicel would have to implement and make ready MNP in its network "in case" another network operator sought to avail itself of the service. If it was required to do so then the investment may be wasted in the event that no operator sought the service.”</p> <p>“f. ... regardless of when or even whether a request for MNP is actually made, Digicel faces a potential liability for those costs given that a request could be made at any time. Thus, it faces an expectation of costs and this will constrain Digicel’s business including future decisions made on allocation of capital to other productive investments such as expanding coverage and the introduction of new services. However, the NICTA Consultants do not appear to have taken this into account in any of its analysis.”</p>	<p>in its sister countries in the Caribbean.</p> <p>This would be a matter for the implementation arrangements, but NICTA has no current plan or expectation that Digicel would have to anticipate a request and make its network ready in advance of a request for MNP.</p> <p>NICTA would expect Digicel to factor in the necessary MNP related CAPEX investment into its medium budget planning but would also expect to provide reasonable notice to Digicel to expend such investments once a request to initiate the MNP implementation process is received from another operator.</p> <p>This is fanciful. Digicel will have ample notice of any date on which MNP might be implemented, if it is implemented at all, and nobody would expect that Digicel could make its network MNP ready at short notice. If MNP goes ahead on any basis Digicel will have a further opportunity to contribute its views on what would be reasonable notice periods for various stages in the implementation.</p> <p>Within the report, the consultants have demonstrated the estimated minimum and maximum MNP related costs would have a marginal impact on Digicel’s annual CAPEX investments (based on the globally benchmarked Capital Intensity metric. Consequently, including the MNP related CAPEX investment in the medium-term budgets should not constrain other operational investment programmes or initiatives.</p> <p>Digicel has misunderstood the context of the</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>“g. The uncertainty would also be likely to delay timing of MNP in the event that it was requested as any implementation process would presumably only be expected to commence after a request had been made. Relevantly, Laurasia Associates in its 2014 Number Portability Overview presentation estimates that it would take between 50 and 80 man months to implement number portability.”</p>	<p>implementation information provided in the 2014 NP presentation (which was presented to the CTU/ ITU Caribbean conference in Suriname). In the Laurasia Associates NP workshop materials, it was clearly presented that typically MNP programmes take between 15 to 18 months to complete once the initial decision to proceed has been confirmed by the national regulator.</p> <p>Laurasia Associates explained in a separate session of the 2014 NP workshop that typically, operators should consider budgeting for between 50 and 80 man months of internal/ external resourcing (NOT the implementation timeframe) to support the implementation programme to the launch of the MNP service.</p>
56	Digicel	Page 11: para 49 – Different treatment of Digicel	<p>“Digicel further submits that Digicel should not be under a different or more onerous obligation than any other operator merely because, based on the NICTA Consultants' simple capital intensity analysis, Digicel would be better able to 'afford' the resulting costs.”</p> <p>Digicel considers such an approach to be unprincipled.</p>	<p>Digicel has misunderstood the Discussion Paper on this point. Digicel is dominant in the retail mobile services market and has the overwhelming majority of customers. For that reason its position must be analysed and appropriate solutions adopted for MNP. The capital intensity measure is not the basis of the obligations being considered at all – it is only considered in terms of whether an exemption from obligations might be warranted – as appears to be the case for Bmobile and Citifon, but not for Digicel.</p> <p>It is very appropriate, and principled, to consider the circumstances of the market when considering the specifications that might apply to MNP in that market.</p> <p>The consultants believe the capital intensity metric is appropriate to firstly validate if the estimated MNP costs/ investments are not overly onerous on each</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>stakeholder and to counter potential stakeholder rebuttal that investigating in MNP would unduly restrict other operational investment programmes. The capital intensity assessment of Digicel suggests that the neither the minimum nor maximum estimated MNP related costs and investments would be unduly onerous for Digicel based on global capital intensity benchmarks, but the report has not used the capital intensity metrics to single out Digicel for unilateral MNP obligations. However, the different MNP scenarios are driven by Digicel's clear domination of the Papua New Guinea mobile sector and are considered against defined scenarios whereby MNP could be leveraged by different existing and new entrant competitors.</p>
57	Digicel	Page 12: para 52 – Net benefits in dollars rather than in terms of benefit-cost ratios	<p>“Digicel submits that the approach taken by the NICTA Consultants to the estimation and comparison of costs and benefits is opaque and results in outcomes that are difficult to compare against each other. In particular, when there are multiple options to choose from with different costs, it is better to make comparisons based on the net benefit of each option in dollar terms rather than the benefit-cost ratio. This is because, for example, an option with a small cost could have a high benefit-cost ratio but deliver lower net benefits than an option with a larger cost but a lower benefit ratio.”</p>	<p>Digicel is correct. The consultants have brought the costs and benefits together in the summary table 11.6 on page 46. They have not quantified the net benefit in USD terms, mainly due to the need to keep the report succinct.</p>
58	Digicel	Page 12: para 53 and 54 – Overall conclusion	<p>Digicel “broadly agrees” with Recommendation No 1 at page 9 of the Discussion Paper – namely that NICTA should only consider introducing MNP if and when there is sufficient further in-vestment in an existing operator such as Bmobile to make it able to increase its market share significantly, or a Entrant is licensed and</p>	<p>Noted. For the reasons already given, NICTA considers that there is substantial evidence that benefits would exceed the costs, depending on the manner Recommendation No 1 is introduced.</p>



No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			has entered the PNG market – but considers that there is no evidence that the benefits of MNP exceed the costs at present.	
59	Digicel	Page 13: para 57 – Recommendation No 2	Digicel considers that the second recommendation – namely, 2. That both user right and competition requirements should be considered further by NICTA and the preferences of the industry and the public should be gauged – is not consistent with Recommendation No 1, and it should be investigated no further.	Noted. Recommendation No 2 has been partly implemented by including it in the Discussion Document for public consultation. NICTA has yet to determine whether the costs can be sufficiently reduced to extend the options preferred by the Consultants to include a re-costed set of user rights options in which all mobile operators are required to participate.
60	Digicel	Page 13: para 58 – Deferral of further consideration	<p>“In summary, Digicel submits that the only conclusion that can properly be drawn from the analysis undertaken to date is that there is no reasoned basis for the introduction of MNP in PNG at this time and any further consideration of the potential implementation of MNP should be deferred until a point in time which is the later of:</p> <p>a. two years from now; or</p> <p>b. when population coverage in excess of 90% is achieved by at least two operators; and penetration exceeds 75% of the population.”</p>	<p>Neither of the options proposed by Digicel is acceptable given the reasons why MNP is under consideration in the first place. Option a) will serve only to defer the matter and require a re-start in two years' time (an arbitrary date in any case), and option b) is, in PNG's, years away. Digicel might as well propose to defer MNP indefinitely.</p> <p>Digicel has provided no justification for the timeframes/ market readiness metrics is has proposed which appear to be arbitrary and without any benchmark or other justification.</p> <p>The consultants have never seen the introduction of MNP linked to geographical or population coverage metrics in any other market. The consultants believe it is unfair to restrict existing customers from the flexibility and freedom to move their number/ service because an arbitrary national coverage target has not been met.</p> <p>Contrary to Digicel response, the Report and its recommendations have identified tangible and</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				appropriate market scenarios which could justify the introduction of the MNP service into the Papua New Guinea market.
61	ICCC	Page 1: 2 <sup>nd</sup> para – General view	“The ICCC is of the general view that the introduction of MNP should be delayed until such time when competition is effective in the mobile telephony market. This can happen through the entry of a big telecommunication company with significant investments that can provide efficient competition in the market.”	This view is consistent with the competition criterion in the Discussion Paper. Presumably the first sentence allows for significant new investment via an existing licensed operator.
62	ICCC	Page 2: Question 1 – Will MNP enhance competition?	Yes, through increased consumer choice and encouraging improved competitive responses to attract and retain customers.	Noted
63	ICCC	Page 2: Question 2 – Recipient or Donor Led MNP processes?	ICCC concurs with the Consultant’s findings that Recipient Led processes should be adopted, because of the problems that can arise with Donor Led approaches.	Noted
64	ICCC	Page 2: Question 3 – MNP benefits by type	ICCC accepts the 4 benefit types in Section 4 of the Discussion Paper, but adds other types of benefits as a result of the four categories – such as freedom of choice, avoiding missed calls from clients, reprinting stationery, replacing signage, and avoiding inconvenience.	Noted. The Consultants consider that the specific examples that ICCC mentions have all been covered in the description and quantification of the 4 types of benefits in Section 4.
65	ICCC	Page 3: Question 4 – Costs of MNP	“The ICCC is of the view that the description of the costs in this section is complete. The only concern the ICCC has is if these costs are going to be recovered from the subscribers which could have some bearing on the service rates being increased when MNP is implemented. It could be the case that there will be enhanced competition and increased choice but the	In most markets, regulators consider that the set-up costs to support the implementation and introduction of MNP services are similar across all operators/ stakeholders and thus such investments are equitable, non-recoverable and should be considered as a cost of “doing of business” in the country or considered as overhead costs, i.e. similar to number or spectrum

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>subscribers are paying a higher price than the current rates.”</p>	<p>related costs.</p> <p>Typically, MNP service operating costs are minimal. Consequently, many regulators view that either the indirect and direct benefits from MNP to consumers outweigh the corresponding recovered costs or MNP is a consumer right. Either way, operators are commercial entities and will recover their MNP costs through their consumer revenues. However, the enhanced value overall generated to consumers outweighs the minimal MNP cost recovery via unit charges, if such charges are imposed.</p> <p>Research from around the world clearly shows that imposing MNP related charges directly on consumers constrains porting demand.</p> <p>In some markets, regulators permit Recipient operators to levy reasonable porting charges on customers using the MNP service, but such consumer charges are regulated. In most markets, regulators either mandate free porting or allowing competitive market forces to result in free or minimal consumer charging. Nevertheless, experience from across the world suggests that operators planning to recover MNP investments and operating costs as a profit centre will be disappointed.</p> <p>In all markets, Donor operator charging of consumers to port out is prohibited since this is seen as recognising the cost of failing the customer.</p>
66	ICCC	Page 3: Question 5 –	ICCC is concerned how the investment might be	Noted. NICTA has no view on whether tariff regulation

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
		Each operator to be responsible for its own set-up costs	recouped and whether that will be through price increases. "It is therefore important for NICTA as the regulator to work closely with the operators to ensure MNP is a success and some control is instilled in terms of tariff setting."	will need to be augmented if MNP is introduced. These matters will be further examined if and when implementation detail needs to be considered.
67	ICCC	Page 3: Question 6 – Cost recovery is a transfer function that need not be considered in a costs and benefits analysis	<p>The ICCC's response does not directly address the question of exclusion of cost recovery and other transfer functions from the costs and benefits analysis.</p> <p>However ICCC makes a further comment: "...given NICTA's good intention to introduce MNP to realise the benefits of competition and removing the final barrier of consumer choice in the long term, it is fitting if the government through NICTA subsidise or fully fund the introduction and implementation of MNP. Thus, reducing the chances of the costs been recovered from consumers which only defeats the core purpose of MNP."</p>	<p>It has been no part of NICTA's thinking to date that there should be any subsidisation of MNP from public funds.</p> <p>There is no chance of cost recovery from consumers by increased service prices in any case.</p> <p>It is of interest to note that none of the other 118 cases that were references in the Discussion Paper involved public funding of operator set-up costs.</p> <p>There are some cases, where MNP set-up costs are supported out of central Universal Service funds, but since Universal Service funding is provided by the industry stakeholders, then the costs originate back with the operators. Funding MNP set-up costs from central Universal Service resources could restrict funding for other national ICT programmes.</p>
68	ICCC	Page 3: Question 7 - ARPU	Not a question for ICCC to answer	
69	ICCC	Page 4: Question 8 – Maximum time for a port	ICCC suggests 24 hours or less	Noted

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
70	ICCC	Page 4: Question 9 and 10 – Prerequisites for MNP, application to PNG	ICCC agrees with Section 10.1 of the Discussion Paper, but notes that Digicel's current market share precludes effective competition. In addition "The ICCC is also of the view that we should have a detailed section on number portability in the National Numbering Plan as a prerequisite when we consider the introduction of MNP. The current numbering plan defines portability and types of porting available but it does not outline the requirements or rules of number porting or how it is done especially on the part of the operators."	Noted.  Changes to the national Numbering Plan are prerequisites that will be considered as part of detailed MNP implementation planning.
71	ICCC	Page 4: Question 11 – MNP and tariff transparency for callers	"The ICCC suggests that NICTA should come up with a system to tell callers which network they are contacting given each network providers publish their service rates so that subscribers are aware especially in the months just after the introduction of MNP. The ICCC understands that once MNP is well established and the operators are fully competing, service rates will be very similar between operators, hence, the need for tariff transparency becomes less important."	The suggestion is noted and will be taken further in the course of implementation planning, if implementation occurs.  Neither NICTA nor the consultants foresee a situation where service rates between operators are so similar that tariff transparency becomes less important.
72	ICCC	Page 5: Question 12 – Unsustainable costs of MNP for smaller operators	"...the ICCC is of the view that number portability should not be considered as a user right as yet but as a measure to promote or enhance competition."	Noted. This is a significant comment from the ICCC.
73	ICCC	Page 5: Question 13 – Affordability of MNP to Digicel	ICCC considers that Digicel can afford to the costs of setting-up MNP within its network.	Noted.
74	ICCC	Page 5: Question 14 – Affordability of MNP	ICCC agrees that the costs of MNP could be affordable to a new entrant, but that the ability of a new entrant to compete with an entrenched operator such as Digicel	Noted.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
		by a future new entrant	remains to be seen.	
75	ICCC	Page 6: Question 15 – Views on the cases 1a, 1b, 2, 3a and 3b	ICCC concurs with the Consultant's assessment.	Noted.
76	ICCC	Page 6: Question 16 – User rights approach; advantages and disadvantages	Noted	Noted
77	ICCC	Page 6: Question 17 – Penetration of fixed services insufficient to justify FNP	"The ICCC agrees that there is insufficient penetration of fixed services compared to mobile services, very few expressions of interest in FNP to NICTA, etc. However the ICCC then appears to contradict this view by talking of the benefits of FNP.	Noted. The ICCC's position is unclear.
78	ICCC	Page 6: Question 18 – Competition in fixed services is inadequate for FNP	ICCC agrees.	Noted.
79	ICCC	Page 6: Question 19 – MNP can be extended to FNP at a later date if there is a case for FNP at that stage.	The ICCC agrees that an extension to FNP can be undertaken if justified.	Noted. However the question seeks an answer in systems technical terms, and whether extension for FNP is technically feasible.
80	ICCC	Page 7: Question 20 – Benefits, including cost savings, in implementing FNP at the same time as MNP	ICCC does not have information on this issue, but prefers that FNP be considered only "when the need arises."	Noted.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
81	Telikom	Page 1 – A. User Right rationale	Telikom says that the ‘user right’ rationale does not apply in PNG and the real issue for MNP is competition.	Noted.
82	Telikom	Page 1 – B. Porting out obligation	<p>“It is noted on page 5 of the Report ... it is assumed that ‘any operator without SMP that requests portability would also have to accept requests from other operators.’ The reason for this assumption is unclear ... Telikom considers that MNP porting-out obligation should apply only to Digicel (i.e. one way only) as further explained below:</p> <p>a. Digicel has SMP and one-way MNP is one way to make the market more contestable...</p> <p>b. The Report suggests that the proposed 2-way obligation would not be taken up by, say, bembobile because costs are high ... and there is risk that Digicel would use reciprocity to attract best customers from other networks; and</p> <p>c. It opens the way for a cheaper MNP implementation solution.”</p>	<p>The statement on page 5 of the report is not an assumption at all. It is the principle that must apply if a non-operator triggers a right to receive port-outs from other operators. It would be totally unacceptable for any operator to be able to port-in without an obligation to port-out. The only issue in the Report therefore is whether some non-SMP operators might be exempted from the MNP arrangements altogether. This means that they would neither port-out nor expect to port-in.</p> <p>The suggestion by Telikom is totally unacceptable and would completely negate the competition principles on which PNG policy (as expressed in the Act) is based.</p> <p>It must be recalled that having SMP is not unlawful in itself. The policy of the Act is to enable regulatory action to address abuses of SMP and attempts to extend or maintain it by unacceptable means. This addresses reason a). Reason b) misstates the discussion in the Discussion Paper. Whether the smaller operators participate in MNP would be a matter for them. Reason c) is irrelevant to the current discussion but will be discussed later in this Response Report in any case.</p>
83	Telikom	Page 2 – C. MNP suitability and effective competition	Telikom refers to the prerequisites for MNP and for effective competition in particular. Telkom notes that the Discussion Paper considers that effective competition will likely occur with a well-funded new entrant or improved investment capability by an existing operator.	<p>It is important to be clear that the increased capacity of a new or strengthened competitor needs to be sustained by substantial capital resources over an extended period for it to be effectively competitive with Digicel.</p> <p>To try to reduce that requirement by sharing the infrastructure that Digicel has already invested in,</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			Telikom goes on: "The latter is the most immediate prospect with Kumul Holdings Limited currently rationalising its portfolio of communications companies. Digicel's main mobile competitor bemobile has been strengthened by its partnership with Vodafone and its funding situation should improve post restructure. Furthermore, the 'substantial investment' required by any new competitor to Digicel could be reduced by infrastructure sharing and roaming; increasing competition."	through shared access and roaming, is to make light of the requirement for substantial new investment over an extended period, even though open access arrangements have merit.
84	Telikom	Page 2 – D. MNP and tariff transparency	Telikom proposes that this can be addressed by undertaking the overdue review of the Mobile Retail Service Determination which permits "generous" on-net/off-net tariff differentials.	Noted. The review of the Determination is a matter that will be addressed separately from the MNP issue, although it has consequences for tariff transparency as Telikom has observed.
85	Telikom	Page 3 – E. MNP Systems and costs	<p>"The Report [Discussion Paper] assumes that Onward Routing (OR) and/or All Call Query (ACQ) would be the system(s) by which MNP would be implemented. These are legacy systems that are very expensive for all operators. It is important to consider cheaper options because:</p> <p>a. it will improve the benefit/cost ratio;</p> <p>b. An expensive system is not justified if demand (benefits) does not eventuate. Bahrain is similar to PNG (small country, high level of dual SIM use, mostly pre-paid) and its regulator said on the launch of MNP in July, 2011 that he expected 20% of numbers would be ported; in fact, by the end of 2015, cumulative ports were less than 5% of the market;</p> <p>c. Section 7 of the Report indicates a strong demand for MNP. As Bahrain discovered stated preferences are</p>	<p>ACQ is accepted as the most efficient and reliable routing approach for nationally originated and terminated traffic in a post MNP market.</p> <p>In referring to Legacy systems Telikom is confusing ACQ direct routing and onward routing (OR). OR is just call forwarding under a different name and thus should have minimal impact on legacy systems, i.e. legacy or obsolete core network systems will support onward routing with limited investment or upgrade. Since core network systems are critical to an operator's business and existence, then legacy SS7 core network systems are obsolete and should be replaced by flexible IP based platforms irrespective of MNP or not. The use of the term of "Legacy" only applies to ACQ and not OR</p> <p>Because OR is the same as call forwarding and thus there is no change to the report costs or benefit analysis</p>



No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
			<p>usually lower than revealed preferences (actual choices);</p> <p>d. Given the competition objectives, a simpler solution using temporary diversion could achieve what is necessary to kick-start competition. That is, Bmobile/Vodafone would issue their own SIMS for customers coming from Digicel but calls to their old Digicel number would be diverted to their new number. The temporary diversion of, say, two (2) years gives time for users to update their phone books.”</p>	<p>The Bahrain regulator overestimated porting demand. This has nothing to do with the cost of MNP, just the limited importance of value of telecoms services to Bahraini subscribers (much higher ARPU than PNG). 5% demand is still a positive result and the dual SIM factor is not important or defined in that case.</p> <p>The report is based on forecast demand of 1% increasing to 3% after 3 years which is lower than the actual Bahrain demand of 5%, and is evidence of the consultant Report’s conservative approach.</p> <p>This is the OR approach we have proposed apart from with the proposed OR approach, calls to ported out numbers are onward routed permanently not for 2 years. The Telikom proposal aligns with the OR approach in the report and will not change the costs vs benefits.</p>
86	Telikom	Page 3 – F. Switching barriers and SIM Locking	Telikom refers to the practice of SIM locking by both Digicel and Bmobile as a barrier to switching.	Noted. See response at item 38 above.
87	Telikom	Page 3 – G. Costs	“Citifone based costs were provided by Telikom however the Citifone service is being progressively phased out as Telikom’s 3G/4G service is being rolled out.”	Noted. The costs were received with thanks but were of limited use for economic analysis oriented to future decisions for the reasons mentioned by Telkom.
88	Telikom	Page 3 – H. Other types of Number Portability	Telikom accepts the reasons in the Discussion Paper for not pursuing FNP at this time.	Noted.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
89	Telikom	Page 4 – Question 1: Will MNP enhance competition and benefit PNG consumers	Telikom says 'yes'. "Benefits will be increased by imposing a one-way porting obligation on Digicel and costs can be decreased with temporary diversion instead of using an expensive legacy system."	See responses 82 and 85 above.
90	Telikom	Page 4 – Question 2: Should MNP process be recipient led or donor led?	"Standard practice is recipient-led porting. That is, at the request of a customer the recipient carrier will request Digicel to port/divert a customer. Digicel can refuse until the customer has paid any debt it owes to Digicel. But, in practice, this is not an issue for pre-paid customers who simply forfeit their unused credit to Digicel.	<p>There are a number of misconceptions or incorrect statements in Telikom's comment. The first is that only Digicel will be required to export (or port out) a number. See response 82 above. The second is that the donor can refuse until the customer has paid outstanding debts.</p> <p>The third is that pre-paid customers would simply forfeit unused credit to the donor. There is no reason for that to happen and unused credit would typically be refunded, unless the terms of the mobile services contract precluded this.</p> <p>Across the world, there are a wide range of different approaches to dealing with the sensitive subject of MNP and consumer debt, including requiring consumers to clear their debts before porting to transferring debts between operators.</p> <p>However, many regulators expect that MNP should not be considered as an extension of an operator's credit/ risk management procedures, since a consumer who decides not to settle their debts can simply purchase a new number and SIM with a new provider and abandon their debt obligations with their current provider.</p> <p>Furthermore, requiring consumers to clear their existing billed and unbilled debts with their existing provider allows the provider to discourage or prevent</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>the customer from porting out. Since Post Paid customers are by the nature of their service always in debt, then mandating a clear debt profile with the current provider means the customer cannot use their service during the porting process and will therefore discourage demand for MNP.</p> <p>Accepted best practice suggests that the debt (whether post-paid or pre-paid debt) should not be a reason for blocking porting and provided customer accounts are not barred or suspended for making outbound calls/SMS, then they should be allowed to port out. Best practice MNP processes use SMS validation functions which provide safeguards to Donor operators whereby customers who are overdue on debt payments or have exceeded their credit limits can be prevented from porting out until they have cleared their overdue/ excess debts by blocking outbound calls/ SMS, effectively preventing the sending of the validation SMS to progress their porting requests.</p> <p>Similarly, standard practice across the world suggests that pre-paid customers with remaining balances on their account will lose these balances when they port out their services. The MNP education and porting process should ensure that pre-paid customers use up their credit balance before they port or else these balances will be forfeited.</p>
91	Telikom	Page 4 – Question 3: Is Section 4 of the Discussion Paper an adequate description of the benefits of MNP	Telikom notes that the categories of benefit have been used in previous studies.	Noted.

No	Sub-mission	Reference or subject	Summary of comment	NICTA staff's response
92	Telikom	Page 4 – Question 4: Costs of MNP	Telikom notes that there are cheaper implementation solutions and refers to its previous discussion about temporary diversion.	Noted. See response at item 85 above.
93	Telikom	Page 4 – Question 5: Each operator to bear its own costs	Agreed.	Noted.
94	Telikom	Page 4 – Question 6: Cost recovery	Telikom notes that “any end-user charges should be imposed only by the recipient carrier.”	Noted. This is a matter that will be given further consideration in detailed implementation planning, if MNP is implemented in PNG.
95	Telikom	Pages 4 and 5 – Question 7: ARPU assumptions	Telikom offers some calculations on Digicel's ARPU, and notes that its new GSM/LTE network was not commercially operational when the study was done.	Noted. The data used in the Telikom calculations have been superseded.
96	Telikom	Page 5 – Question 8: Maximum porting time	“The maximum porting time depends upon the system. With temporary diversion and pre-paid customers it should be a matter of minutes rather than hours.”	Noted – this comment appears to agree with the standard of less than a day in the Document.
97	Telikom	Page 5 – Question 9: Prerequisites for MNP	All prerequisites have been satisfied, except for two that can be satisfied.	Noted.
98	Telikom	Page 5 – Question 10: Competition is inadequate for MNP	“The consultants argue that Digicel's existing mobile competitors would lose market share to Digicel because MNP costs are fixed so that smaller operators that have higher unit costs for MNP become less price competitive relative to Digicel. That would not apply with temporary diversion.”	<p>The argument attributed to the Consultants is not their view. The possibility of loss of share to smaller mobile operators was raised as a possibility, especially the market was less than effectively competitive to start with.</p> <p>The consultants have endeavoured to mitigate and minimise the costs to smaller operators who opt not to engage in porting numbers through the use of onward routing. Unfortunately, it is a fact that the majority of</p>

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
				<p>operator MNP related investments are incurred in implementing ACQ direct routing or initiating large scale onward routing</p> <p>However, where smaller operators decide to engage in the MNP service to acquire customers through porting, then it is appropriate that these operators should invest to support ACQ direct routing of nationally originated and terminated traffic. The consultants have provided detailed estimations of set-up investment and operating costs for each stakeholder to help the business decision making process of whether to progress options 1 a/b or 2 versus options 3 a/b.</p>
99	Telikom	Page 5 – Question 12: MNP as user right	User rights could make the competition issue worse because the costs involved in MNO would be imposed on smaller operators under a user rights approach. “MNP is required not as a user right but to enable competition.”	Noted.
100	Telikom	Page 6 – Question 13: Digicel can afford MNP	“Yes. And Digicel would probably like to see the same fixed costs imposed on its competitors lessening competition.”	Noted.
101	Telikom	Page 6 – Question 15: Comments on cases 1a, 1b, 2, 3a, 3b	“The first four (4) differ according to porting rates with the last adding increased costs. Further consideration required. Porting rates might be higher with lower costs and 1-way MNP.”	The last points are certainly arguable. There is no reason why porting rates might be higher with lower costs, if the porting customer is not required to pay a fee to the donor operator. Also, it is unclear why porting rates might be higher with one-way porting. Since one-way porting permits porting in one direction only it would be logical to conclude that it leads to lower porting rates overall rather than higher.

No	Sub- mission	Reference or subject	Summary of comment	NICTA staff's response
102	Telikom	Page 6 – Question 17: FNP	“At this point, the fixed market is negligible compared with mobiles. If MNP is intended to enable competition, it is the mobile sector which should be the focus.”	Noted.
103	Telikom	Page 6 – Question 18: Inadequate competition for fixed services in PNG now and for the next 5 years	“The mobile sector provides competition to fixed networks now.	It is not clear what Telikom is saying here. If there is adequate competition FNP is more likely than not to be adopted under the Discussion Paper procedures.
104	Telikom	Page 7 – Question 19: Can MNP be extended to cover FNP later?	“Yes. FNP has followed MNP in some other markets. But, FNP does not have to occur.”	Noted.
105	Telikom	Page 7 – Question 20: Are there cost savings or other benefits in implementing MNP and FNP together?	“Again, the issue is mobile competition, not fixed competition.”	Telkom has not answered the question.