



**Public Inquiry
into the need for a
Retail Service Determination
regarding certain
mobile telephony services**

DISCUSSION PAPER

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1 EXECUTIVE SUMMARY

The *National Information and Communications Technology Act 2009* (the Act) provides for NICTA to conduct a public inquiry into whether or not particular retail services should be subject to a retail service determination. A retail service determination is a regulation that is made by the Minister, based on a recommendation from NICTA, which can specify the retail pricing, service standards and some related issues in relation to the supply of a particular retail service.

bemobile has requested NICTA to hold such a public inquiry to examine Digicel's pricing of mobile calls to bemobile's customers. bemobile seeks the establishment of a retail service determination and the imposition of specific retail price controls on Digicel.

NICTA did not find the evidence submitted by bemobile in support of its claims against Digicel to be compelling. However, having brought the matter to NICTA's attention, NICTA undertook its own preliminary examination based on the information available to it and concluded that there were matters that warranted being tested and considered further through a public inquiry process.

In responding to bemobile's complaint it has been necessary for NICTA to consider the following key issues:

1. What is the relevant market?
2. Does Digicel (or any other licensee) have significant market power (SMP) or a dominant position in the relevant market?
3. What is the behaviour that is alleged to be or could be anti-competitive?
4. What are the elements of the alleged behaviour that need to be proven for the behaviour to be considered to be anti-competitive?

Given the nature of the complaint raised by bemobile, the types of anti-competitive behaviour that a regulator would typically look for are:

- anti-competitive cross subsidy;
- predatory pricing;
- excessive pricing; and/or
- anti-competitive price discrimination.

NICTA's consideration of these matters is summarised in this discussion paper. It has lead NICTA to reach the following tentative conclusions:

- (a) the relevant market is the market for off-net call and SMS services by the retail customers of the mobile network operators (even though the complaint that initiated this inquiry relates only to calls from Digicel to bemobile customers);
- (b) there is a *prima facie* case that Digicel has SMP in the relevant market;
- (c) there is no *prima facie* case of either anti-competitive cross subsidy or predatory pricing by Digicel in the relevant market;

- (d) NICTA has insufficient evidence to form a view on whether or not Digicel is engaging in excessive pricing (that is, pricing in excess of costs and a reasonable return that may constitute an abuse of SMP); and
- (e) NICTA has insufficient information to form a view on whether or not Digicel is engaging in anti-competitive price discrimination.

NICTA has not yet given any consideration to whether or not a retail service determination would be necessary or appropriate in these circumstances.

NICTA now invites comments and evidence to be submitted by interested stakeholders in relation to the above issues and NICTA's tentative conclusions, and in response to the specific questions raised throughout this discussion paper. The deadline for submissions is 16th December 2011.

2 BACKGROUND

bemobile Limited (bemobile) has requested NICTA to hold a public inquiry to examine its claims that Digicel (PNG) Limited (Digicel) is pricing calls to bemobile customers in an anti-competitive manner. bemobile seeks the establishment of a Retail Service Determination and the imposition of retail price controls on Digicel.

The evidence provided by bemobile in support of its claims against Digicel was not compelling and does not, of itself, warrant a public inquiry. However, having drawn an issue to NICTA's attention, NICTA undertook a preliminary examination of its own and concluded that there were matters that warranted being tested and considered further through a public inquiry process.

The terms of reference of the public inquiry are at Annex A.

2.1 Retail Service Determinations

Part VII of the *National Information and Communications Technology Act 2009* (the Act) sets out special arrangements relating to consumer protection and the regulation of retail pricing. Under section 157 of the Act, NICTA is able to hold a public inquiry under section 230 of the Act to determine whether or not it should recommend to the Minister that one or more particular retail services supplied by one or more specified Operator Licensees should be subject to a retail service determination.

A retail service determination is a regulation that is made by the Minister based on the recommendation of NICTA. Depending on the nature of any problem identified by NICTA through a public inquiry, a retail service determination may specify the price(s) of particular retail services and the conditions under which those services may be supplied. More specifically, as set out in section 161 of the Act, a Retail Service Determination may:

- (a) regulate prices for the supply of the retail service, including (without limitation):
 - fixing a price or the rate of increase or decrease in a price, including a maximum or average price or rate; or
 - controlling a price by requiring changes in that price to be consistent with a pricing formula, including one that makes reference to, relies upon or otherwise controls several prices, including that price, so long as each of those prices are prices for applications services that are subject to price control; or
 - specifying an amount determined by reference to a general price index, the cost of production, rate of return on assets employed, quantity, location, period or any other specified factor; or
 - fixing a maximum revenue, or maximum rate of increase or minimum rate of decrease in maximum revenue from the retail service; or

- requiring prices to be consistent with any relevant international benchmarks for prices, costs and return on assets, taking into account the particular circumstances of Papua New Guinea; or
 - requiring the operator licensee supplying the retail service to submit tariffs to NICTA on a periodic basis for prior written approval on such terms as are specified in the retail service determination, including traffic forecasts; or
- (b) specify service standards that the operator licensee supplying the retail service must meet, together with:
- payments which that operator licensee must make to any retail customers (whether by way of rebate or otherwise); or
 - price reductions which must apply,
- if the operator licensee fails to meet those service standards; or
- (c) specify any pricing policies and/or principles that must be complied with by the operator licensee in pricing the retail service; or
- (d) specify conditions relating to the price of the retail service, including that any calculation is to be performed, or a matter is to be determined, by NICTA; or
- (e) require the operator licensee to provide specified information to NICTA, retail customers, or any other persons on such terms as are specified in the retail service determination; or
- (f) require the operator licensee to supply the retail service in particular areas or to particular classes of retail customer, provided it has the technical capability to do so over its existing network in the relevant geographic areas; or
- (g) require the operator licensee to comply with any terms and conditions advised by NICTA that NICTA considers are necessary or desirable to give effect to any of the matters listed in (a) to (f) above or to monitor compliance with the retail service determination.

2.2 bemobile's request for a public inquiry

On 27 January 2011, bemobile requested NICTA to initiate a public inquiry into the supply of certain retail mobile telecommunications services by Digicel. The request was made under subsection 157(2) of the Act, which allows any person to make such a request of NICTA. The specific services that bemobile requested be the subject of the inquiry were off-net calls and SMS from Digicel to customers of bemobile.

bemobile proposed that NICTA should recommend that the Minister make a retail service determination that imposes a cap of Kina 0.99 per minute on the retail price that Digicel may charge for calls to bemobile customers. bemobile also suggested a separate cap of Kina 0.25 per message on the retail price that Digicel may charge for SMS messages from Digicel customers to bemobile customers.

bemobile considered that such a retail price determination was required because:

- '(1) the retail pricing of Digicel for these services is excessive and cannot be legitimately justified;
- (2) Digicel exercises a substantial degree of market power in respect of these specified services;
- (3) Digicel exercises a substantial degree of market power in respect of mobile telecommunications services in general;
- (4) [bemobile] consider the purpose or likely effect of Digicel's retail pricing of these services is to maintain or increase Digicel's substantial degree of market power in the mobile telecommunications market through:
 - (a) new customers being deterred from selecting bemobile as their network because the majority of potential calls to their bemobile number (i.e. Digicel customers) will have to pay an unjustifiable high cost set by Digicel to make the call/SMS and/or
 - (b) consumers on the Digicel [sic] being deterred from making calls and sending an SMS to bemobile subscribers by the unjustifiably high cost set by Digicel to do so and thereby constraining the market for bemobile to supply the associated interconnection termination services and diminishing the revenue thereby generated for bemobile which would assist bemobile in maintaining effective competition to Digicel in the mobile telecommunications market; and
- (5) [in bemobile's view the] conduct on the part of Digicel:
 - (a) is contrary to the objectives of the National ICT Act and in particular sections 2(a)–(d) & (f);
 - (b) has the purpose or has or is likely to have the effect of substantially lessening competition in a market, being the market for mobile telecommunications services, contrary to Section 50¹ of the Independent Consumer and Competition Commission Act 2002 (the ICC Act) and/or
 - (c) constitutes the taking of advantage of a substantial degree of market power contrary to Section 58² of the ICC Act.'

The ICC Act is administered by the Independent Consumer and Competition Commission (ICCC). It is not appropriate for NICTA to consider issues that arise under the ICC Act and which thus can be addressed by the ICCC using the powers and the processes set out in that legislation. If there are concerns arising under the ICC Act, then those issues should be raised directly with the ICCC. Accordingly bemobile's references to the ICC Act have not been considered further by NICTA.

¹ Which prohibits contracts that have the effect of substantially lessening competition.

²Which prohibits taking advantage of market power to restrict market entry, deter competition, or force market exit.

Nevertheless it is NICTA's intention, if the ICCC decides to institute a parallel investigation into whether the allegations disclose actual breaches of the ICCC Act, to coordinate closely with the ICCC. This makes sense because the factual background on which the National ICT Act and ICCC Act issues arise are essentially the same.

2.3 NICTA's process for considering bemobile's request

NICTA is not required to hold a public inquiry just because it receives a request to do so. As set out in subsection 157(3) of the Act, after receiving a request to hold a public inquiry, NICTA must decide whether or not to do so after having regard to:

- the objectives of Part VII of the Act (regarding consumer protection and retail pricing);
- whether the request for a public inquiry was made in good faith; and
- any other matters that NICTA considers to be relevant.

Accordingly, in response to bemobile's request, NICTA adopted a process to determine whether or not there was a prima facie case that warranted being subject to a detailed examination through a public inquiry process. Accordingly NICTA:

- informed Digicel of bemobile's request (as required under subsection 157(3) of the Act);
- invited Digicel to respond, with supporting evidence, to the claims made by bemobile;
- invited bemobile to substantiate further its claims;
- referred the matter to the ICCC; and
- undertook its own analysis of the relationships between the retail and wholesale prices and costs for the relevant services (to the extent that such pricing and cost data was available to NICTA).

The tentative conclusions from NICTA's preliminary analysis are reflected in this discussion paper.

2.4 Inquiry process and responses to this discussion paper

NICTA intends to conduct this public inquiry by submission and cross-submission and at this stage does not intend to convene any formal public hearings. However, NICTA reserves the right to modify that view if it subsequently considers that public hearings under section 234 of the Act are necessary or desirable for the resolution of the issues that are raised during the inquiry.

The purpose of this discussion paper is to provide stakeholders and other interested parties with the opportunity to submit comments and evidence to NICTA on matters relevant to the NICTA's consideration of the issues and the inquiry terms of reference. NICTA will be accepting comments in response to this discussion paper for a period of four weeks, ending on 16th December 2011. All comments that NICTA receives will be

made available on NICTA's website to provide interested parties with an opportunity to submit additional comments to NICTA (i.e. cross-submissions) on the comments, evidence or data that has been submitted by others.

After considering all of the information provided to it, and consulting with the ICCC, NICTA will publish its preliminary view and a draft decision. Interested parties will have a period of about three weeks to comment on that draft decision and provide additional information or evidence. NICTA will consider any additional comments that are received before making a final decision.

2.4.1 Submissions in response to this discussion paper

NICTA invites all members of the public, including Existing Licensees, private individuals, public organisations and commercial entities (together, the "Respondents") to participate in this inquiry process. Respondents are invited to submit written comments in response to the specific question and other issues raised in this discussion paper by no later than close of business on Friday **16th December 2011**.

Comments may be submitted to one or more of the following addresses:

(a) E-mail to: kgulovui@nicta.gov.pg

(b) Post to: Mr Kila Gulo Vui
Director Economics, Consumer & International Affairs
National ICT Authority
PO BOX 8444
BOROKO 111, NCD

Copies of all written comments submitted by Respondents in relation to this consultation will be published on NICTA's Public Register on the NICTA website consistent with the requirements on NICTA under subsection 229(3) of the Act.

2.4.2 Claims of confidentiality over information submitted to NICTA

Claims of confidentiality over any information that is submitted to NICTA are governed by section 44 of the Act. As section 44 makes clear, NICTA ultimately determines whether or not it will accept a claim of confidentiality and exclude the information subject to that claim from publication. Accordingly, any respondent that wishes to claim confidentiality over information that it submits to NICTA in response to this discussion paper, or during the course of this inquiry, should clearly identify the specific information that it considers to be confidential and support its claim for confidentiality with a specific explanation. It should be noted that expressions of opinion would not normally be considered to be confidential.

NICTA encourages respondents that intend to submit confidential information to NICTA to do so by way of a separate attachment that can be withheld from publication when NICTA makes the rest of the submission available for cross-submissions. Alternatively, if the information that is confidential cannot be easily separated from the body of the submission, the respondent should supply NICTA with two versions of its submission: a confidential version and a public version in which the confidential information is redacted.

3 Consideration of the issues raised by bemobile's request

The overall issue that has been alleged by bemobile is that Digicel has acted anti-competitively in abusing a position of power in a market or is in a position to do so. The specific issues that arise from this general allegation need to be identified and individually examined in detail. Those specific issues are:

1. What is the relevant market?
2. Does Digicel (or any other licensee) have significant market power or a dominant position in the relevant market?
3. What is the behaviour that is alleged to be or could be anti-competitive?
4. What are the elements of the behaviour that need to be proven for the behaviour to be considered to be anti-competitive?
5. If the behaviour is found to be anti-competitive, what remedies if any should be implemented to address the anti-competitive effects?

NICTA's consideration of these and related issues is discussed below.

3.1 The relevant market

Markets need to be defined in geographic, service and customer terms.

In the present case it would not appear to be contentious to define the:

- market geographically as national, given that both bemobile and Digicel are licensed to operate and plan to operate as national mobile network operators; and
- customers as retail customers that include both residential and business customers.

The issue of the service dimension of the market definition is less clear. bemobile's complaint relates to the prices charged for calls and SMS to Digicel customers when they communicate off-net with bemobile customers. On that basis it might be assumed that the service dimension should be:

- The market for calls from Digicel to bemobile customers; and
- The market for SMS from Digicel to bemobile customers.

However, these market definitions may not be robust. They relate to call origination. For example, if a Digicel customer is a regular caller to customers on the bemobile network the Digicel customer might obtain a bemobile subscription—either in lieu of or in addition to the Digicel subscription—or might encourage called parties to become Digicel customers themselves. Presumably most bemobile customers would be indifferent to the issue, unless they were made aware that the volume of calls they expect to receive has declined, or if Digicel customers drew their attention to the issue.

The Hypothetical Monopolist Test (sometimes known as the Small but Significant Non-transient Increase in Price or SSNIP test) is not particularly helpful in resolving the service boundaries that define the relevant market. The SSNIP test deals in price changes with a 5–10% increase typically regarded as small but significant to meet the requirements of the test.

There is inadequate data to be able to say with certainty that if Digicel increased the price of calls and SMS from its customers to bemoible customers by 5–10% that this would be profitable. NICTA does not have information on the elasticity of demand at current price levels. Further, NICTA does not have a basis for saying that the current price of such calls and SMS are competitive (that is, the prices that would be set by a competitive market) and therefore has no means of avoiding the risks associated with the Cellophane Fallacy.

NICTA does have some grounds for concluding (albeit tentatively) that price increases of 5–10% by Digicel for off-net calls and SMS might be profitable, as follows:

- (i) Occasional callers from Digicel to bemoible might simply pay the increased retail price imposed by Digicel. International experience suggests that subscriber and customer inertia and acceptance are usually under-estimated.
- (ii) Because of the relative market shares of Digicel and bemoible it would be more likely that a Digicel caller will call another Digicel customer than a bemoible customer. As a consequence, the chances that Digicel customers will accept the price increase for off-net calls may be greater.
- (iii) Digicel customers have options available to them to reduce the impact of the price increase. Some of the options involve calling strategies that will reduce Digicel's revenue, such as encouraging reverse calling (i.e. "call backs") or obtaining a bemoible subscription. However, some of those options involve strategies that would improve Digicel's commercial outcome, such as encouraging frequently called bemoible customers to take a Digicel service.
- (iv) Initial strategies by Digicel customers such as making fewer or shorter calls to bemoible customers would likely atrophy over time. The initial resolve relating to personal calling and texting behaviour tends to subside over time.

However, even though bemoible's original complaint was focussed on calls and SMS from Digicel customer's to bemoible customers, fixed calls also need to be considered in defining the relevant market. (That is, NICTA considers it important to differentiate the scope of the complaint from the definition of the relevant market.)

The issue is whether the emphasis in the market definition should be on off-net calls and SMS *made by* Digicel customers (to anybody) or whether the emphasis should be on calls made *to* bemoible customers. The distinction could well be important because the power of Digicel in each of these separately defined markets may differ.

NICTA is currently inclined to the view that the relevant market is the market for off-net call and SMS services by the retail customers of the mobile network operators, even though the complaint relates only to calls from Digicel to bemobile customers.

Specific questions for stakeholders

- (1) Do you agree with the analysis and the conclusion about the definition of the relevant market for this inquiry?
- (2) If you disagree with the market definition relevant to this inquiry, what market(s) would you consider to be the relevant market(s)?

Please provide argument and if appropriate evidence to support your views.

3.2 Dominance or significant market power³ in the relevant market

Dominance is the ability of a participant in a market to act substantially independently of its competitors and consumers, and not be unduly constrained in decision-making on price or service by the possible reactions of competitors and customers. In an effectively competitive market competitors are constrained by each other and by customers. They know that if they increase prices or reduce output they will lose customers to competitors and will sustain commercial damage as a result. However, if they are dominant they know that these constraints either do not apply or will apply only if the decisions involve very large changes in price or production.

A number of considerations typically impact on whether there is dominance in a market. None of these considerations is determinative of the issue when taken alone. In particular, market share is not in itself determinative of market dominance because it is usually the result of a range of competitive circumstances rather than a cause. The various considerations that need to be assessed when determining if there is dominance in a relevant market are listed in Figure 1, together with a tentative indication of NICTA's view on the relevance of those factors in the present case and their probable impact of the assessment of SMP. The data and evidence obtained through this public inquiry process may change some or all of these preliminary conclusions.

³ In subsection 158 of the Act, it is called 'a substantial degree of power in the market'. It means the same thing in NICTA's view.

Figure 1: Initial consideration of the factors relevant to determining SMP in a relevant market

Factor	Relevant to the present case	Indication of SMP
Market share	Relevant	A share in excess of 70% suggests Digicel is dominant
Overall size of the licensee	Probably not relevant in this particular case	
Control of infrastructure not easily duplicated	Although mobile network platforms are duplicable, more than one network infrastructure may not be economic in many rural and remote regions of PNG. This would indicate that there is first-in advantage.	Digicel has national coverage and bemoile has yet to complete its network build-out. This supports the suggestion that Digicel is dominant.
Network effects	Relevant	Suggests that Digicel is dominant
Technological advantages and superiority	Probably not relevant in this particular case, because competitors are using modern technologies from international vendors	
Absence of or low countervailing buying power	Probably not relevant given the reciprocal level of terminating interconnection charges	Supportive of Digicel dominance, but a weak factor
Easy or privileged access to capital markets / financial resources	May be relevant, but no information available to NICTA to indicate that it is	
Product / services diversification	Probably not relevant	
Economies of scale	Could be relevant in providing a licensee with cost advantages	Suggests Digicel is dominant
Economies of scope	Probably not relevant	
Vertical integration	Digicel's vertical integration of wholesale and retail operations is relevant and, absent regulation, enables cross-subsidisation of retail operations from wholesale revenues.	Further information is required, but the market structure supports the suggestion that Digicel could be dominant
A highly developed distribution and sales network	No evidence to suggest that this is a relevant consideration	
Absence of potential competition	Given the existence of actual competition, the absence of further entrants may not be important. However, potential competition exists in the form of Telikom, so this consideration is unlikely to be relevant	
Barriers to expansion	Not relevant, given the current levels of penetration are apparently below saturation levels (but this is arguable)	
Ease of market entry	Market entry is easy from a regulatory perspective, but the current level of competition coupled with first-in advantages may be a commercial barrier to new entry.	A weak indicator favouring Digicel dominance.
Excess pricing and profitability	This is a relevant consideration generally but needs to be shown to be the case in the PNG market	
Lack of active competition on non-price factors	Evidence is wanting on whether this is a relevant factor in this case or not	

Switching barriers	This may be relevant given the absence of MNP. There may be other barriers that need to be identified as well, such as contract terms. However the high level of pre-paid services suggests that contract periods would only apply, if at all, in a minority of cases	
Customers' ability to access and use information	May be relevant, but evidence either way is absent	

Overall, NICTA believes there is a *prima facie* case that Digicel is dominant in the relevant markets (those markets being the retail markets for off-net calls and SMS services by mobile network customers). However, NICTA wishes to emphasise that that is a tentative view, not a definitive conclusion. NICTA is aware that evidence of Digicel's presumed dominance is wanting on many factors and NICTA is certainly prepared to consider arguments, supported with evidence, that Digicel may not be dominant.

For the purposes of this discussion paper though, and to allow the current inquiry to progress while evidence is collected and analysed, the remainder of this discussion paper has been prepared based on the assumption that Digicel has SMP in the relevant markets.

Specific questions for stakeholders

- (3) Do you agree with the criteria for dominance and the way they have been applied (as far as the evidence allows) by NICTA?
- (4) Are there different conclusions on any of the criteria for dominance that you would draw and, if so, what are they?
- (5) Are there other criteria for dominance that should be considered, and, if so, what are they and how should they be applied in this case?

Please provide argument and if appropriate evidence to support your views.

3.3 Possible anti-competitive behaviour and evidentiary requirements

Given the nature of the complaint raised by bemobile, the types of anti-competitive behaviour that a regulator would typically look for are:

- anti-competitive cross subsidy;
- predatory pricing;
- excessive pricing (as an abuse of a dominant position); and/or
- anti-competitive price discrimination?

The evidence to indicate whether or not Digicel may be engaging in any of these behaviours is discussed further below. The relevant pricing data is shown in Figures 2–4.

Figure 2: National call charges (peak rate) in Toea / Minute

Call scenario	Retail price	Call Termination Rate (CTR)	Retail price net of CTR
Digicel–Digicel (on net)	99	n/a	99
Digicel–bemobile	170	26	144
Digicel–Telikom	150	9	141

Figure 3: National call charges (off peak rate) in Toea / Minute

Call scenario	Retail price	Call termination rate (CTR)	Retail price net of CTR
Digicel–Digicel (on net)	49	n/a	49
Digicel–bemobile	140	22	118
Digicel–Telikom	100	7	93

Figure 4: Local SMS Rates in Toea / Message

Call scenario	Retail price	Message termination rate (MTR)	Retail price net of MTR
Digicel–Digicel (on net)	25	n/a	25
Digicel–bemobile	35	5	30

The analysis contained in this discussion paper uses only the peak call rates because off peak call prices are typically not related to costs, which may approximate zero if based on marginal short run costs. Off peak call prices are instead typically based on management judgements about load shifting and matching competitive offers. SMS rates are typically not based on the cost of conveyance either but are treated as a value-based adjunct to total mobile service.

International call charges

bemobile stressed the point in its original submission to NICTA that the retail charges offered by Digicel for most of its international call services are below the national retail charge of 170 toea per minute for off-net national calls to bemobile customers during peak times.

The international retail call rates for all operators in PNG are shown in Figure 5 (using the bemobile’s band categories for ease of comparison). For each rate band the bemobile and Telikom per minute rates are above those of Digicel. However, bemobile

has not alleged that Digicel's international rates are predatory. Rather, bemobile may be taken as assuming that Digicel's international rates are reasonable and provide a benchmark to show how high the Digicel–bemobile national retail rate is.

Figure 5: International retail call rates (peak times) in Toea / Minute

Operator	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Digicel	148–166	148	166	166–300	166	166–300
bemobile	301	211	301	211	211	301
Telikom (fixed)	270–303	270–303	404	404	404	404

Note 1: Flag fall charges have been added assuming call duration is 3 minutes

Note 2: The Bands used are the bemobile bands as follows:

- Band 1: USA, Canada, Philippines, South Korea, Taiwan, India, Sri Lanka
- Band 2: Malaysia, Australia, NZ, Singapore, HK, China
- Band 3: Bahamas, Bermuda, Puerto Rico, Cyprus, Costa Rica, Thailand, Russia, Vietnam, Bangladesh, Israel
- Band 4: Indonesia, AUST External Territories, Nauru, Tonga, Solomon Islands, Vanuatu, Fiji, Palau, Wallis - Fortuna, Cook Is, Niue, Western Samoa, Kiribati, New Caledonia, Tuvalu, French Polynesia, Tokelau Is, Micronesia, Marshall Is.
- Band 5: Mariana Island, Guam, Brunei, American Samoa
- Band 6: Rest of the world (including Solomon Islands)

NICTA is inclined to the view that any reference to international call rates is irrelevant to establishing whether or not off-net national charges are anti-competitive or an abuse of dominance. The point that bemobile is seeking to make is based on the assumption that national call retail charges should always or generally be lower than international rates. That is not necessarily a sound assumption for today and the future and is based on past price relationships. The cost of international minutes has fallen rapidly in recent years as a consequence of the vast increases in international cable capacity, the use of IP technologies by carriers and competition, including from VoIP services. Further, if it is assumed that the international call rates of bemobile and/or the Telikom are reasonable relative to cost, and that Digicel has simply achieved a better commercial deal with its international correspondents, then the argument that Digicel's international call rates indicate that its national call rates are too high loses its force entirely.

NICTA is prepared to consider further argument on this point and will consider any further evidence provide by interested parties, but currently considers international call rates to be irrelevant consideration in this present case.

Specific questions for stakeholders

- (6) Do you agree with NICTA's preliminary treatment of the arguments based on the relativities of national mobile and international call charges? If not, please explain how, in your view, the relativities can be used to show that Digicel is abusing a position of dominance in a market?

Please provide argument and if appropriate evidence to support your views.

3.3.1 Is there any indication of anti-competitive cross subsidy by Digicel?

Firms engage in cross-subsidy on a regular basis, when they use the revenues from one product or service to off-set losses sustained in other products or services. They might do this, for example, when an established product is used to fund a new service that has yet to gain traction in the market and to reach a profitable level. These situations do not necessarily raise issues of anti-competitive behaviour.

Concerns about anti-competitive cross-subsidies arise if a firm uses its position of dominance in one market to leverage advantage that is not based on merit in another market. Of particular concern is whether the arrangement is being used to support pricing below cost in a competitive market.

Digicel's returns from Digicel–bemobile (D-b) and Digicel–Telikom (D-T) call scenarios are higher than those from Digicel–Digicel (on net) calls. However, it is not illegal for a dominant firm to have different rates of return from different services. Whether or not there Digicel cross subsidises the prices of on-net calls with the revenues from D–T and D–b calls depends on whether or not Digicel's on-net calls are profitable in themselves. That matter is examined below in section 3.3.2. If Digicel's on-net calls are profitable in themselves, albeit with a lower level of profit than other calls, it would not be open to NICTA to conclude that there was illegal cross-subsidy.

Specific questions for stakeholders

- (7) Do you agree with NICTA's preliminary analysis on whether Digicel is cross-subsidising in a manner that could be or is an abuse of dominance? If not, please provide your own view and analysis, including what NICTA should do about it.

Please provide argument and if appropriate evidence to support your views.

3.3.2 Is there any indication of predatory pricing by Digicel?

In general terms, a firm is said to be predatory pricing when it:

- (a) prices at levels that are unreasonably low, whether because they are below some measure of costs or because they otherwise generate an inadequate rate of return; and
- (b) does so with the purpose or effect of eliminating, disciplining or otherwise inhibiting the competitive conduct of an existing or potential rival.

More precisely, a predatory price is a price that is profit maximizing only because of its exclusionary or other anti-competitive effects. It is not the price level alone that is decisive for a price to be predatory, but also the firm's intention to take a rival out of the market.

If the call termination rates shown in Figure 2 are cost based then there would seem to be no case at all that Digicel's retail charges to its own customers are below cost. However, NICTA has no reason to believe that those termination rates reflect costs because those rates have been negotiated bilaterally between the parties and were not subjected to cost modelling by NICTA.

Typically the cost of on-net calls might be taken as around twice the costs of call termination. On top of this a further mark-up of (say) 50–60% for retail costs would be reasonable. Using these rough proxies, the cost of a Digicel on-net call (marked up from the peak CTR rate for bemobile) would be 83.2 toea per minute ($[2*26]*1.6$). As that is below the 99 toea per minute charged Digicel for its on-net calls, it could be concluded that there is no prima facie case that Digicel is predatory pricing.

Based on that same calculation, it could also be concluded that there is no prima facie case that Digicel is engaging in an anti-competitive cross subsidy of its on-net rates using the revenues from if off-net calls to bemobile customers.

Specific questions for stakeholders

- (8) Do you agree with NICTA's preliminary view and analysis that there is no evidence that Digicel is predatory pricing? If not, please provide your own view and analysis, including what NICTA should do about it.

Please provide argument and if appropriate evidence to support your views.

3.3.3 Is there any indication of excessive pricing by Digicel?

The practice of excessive pricing is considered to be anti-competitive behaviour when it involves a dominant operator charging prices in excess of what it could normally charge in a competitive market. Markets are most efficient (as measured by productive

and allocative efficiency) when prices are based on the interaction of both demand and supply factors in a free market. When prices are higher than at competitive levels, consumers are worse off and overall welfare is reduced.

The basic question that NICTA must address is whether the difference between the costs actually incurred by Digicel and the prices actually charged by Digicel is excessive. NICTA must consider whether a price has been charged which is either unfair per se or unfair when compared to other competing services.

The competitive price is the long run average cost of an efficient firm. At that price efficient firms are just covering their total costs and not earning any excess returns. If the price is above that level, then under conditions of effective competition we should expect to see market entry driving prices back down to average costs, whilst if prices were below that level we should expect to see market exit, thus leading to prices rising to average cost. However, the conditions in the relevant markets may not be effectively competitive.

A price above the competitive price level may or may not be excessive, depending on how far above the competitive price the actual price is. For example, in the short run the price could fluctuate substantially around the long term average that could deliver cost recovery and normal profit. Above cost pricing therefore is a necessary but not sufficient condition for excessive pricing. It needs to be well in excess and over the longer term.

In the case at hand, the indications of potential excessive pricing seem to be stronger than for the other allegations of anti-competitive behaviour by Digicel. If there is a profitable return to Digicel at 99 toea per minute (for an on-net call) then the return at the net figure of 144 toea per minute (for D–b calls) or 141 toea per minute (for D–T calls) might well be excessive. If the costs, including a reasonable mark-up for sales and profit, are 83.2 toea per minute (based on the calculation in s.3.3.2) and the net price is 144 (refer Figure 2), then the return (over the cost of capital that might be considered to have been included in the building block figure of 26 toea per minute for call termination) would be around 74%. This appears to be very high.

Based on this estimated return, NICTA believes that there is a prima facie case that Digicel may be engaging in excessive pricing. If competition is not able to constrain prices then some form of retail price control may be appropriate.

Specific questions for stakeholders

- (9) Do you agree with NICTA's preliminary view and analysis on whether Digicel is engaging in excessive pricing? If so, what should be done about it by NICTA? If not, please provide your own view and analysis.

Please provide argument and if appropriate evidence to support your views.

3.3.4 Is there any indication of anti-competitive price discrimination by Digicel?

In general, price discrimination exists when two units of the same physical good are sold at different prices, either to the same customer or to different customers. This is not per se anti-competitive and might be a pro-competitive strategy.

Price discrimination is considered to be an anti-competitive conduct when equivalent products are provided to different customers on different terms without a sound economic justification and with a negative impact on total welfare.

At one level there is definitely no case for anti-competitive price discrimination. Digicel has not discriminated between the prices it charges its customers for calls to Telikom and calls to bemobile. When the CTR is netted out, those rates are effectively the same at 141 toea per minute and 144 toea per minute, respectively (refer Figure 2).

However, in the present case the difference is in the charges for different services supplied to the same customers rather than for the same service to different customers. Normally charging different prices for different services would attract no attention in competition regulation. However, the services are essentially conveyance or termination services and in that sense may not be different. In the one case the service is terminated on-net on the Digicel network, while in the other case the call is terminated off-net. If the service is essentially the same functional service (completion of the call conveyance) the question arises whether there are costs or other justifications sufficient to justify the different retail prices involved. The calculations above in section 3.3.2— although very preliminary—suggest that the discrimination cannot be justified by cost. The discrimination is undoubtedly intended to improve Digicel's competitive position, which in itself is perfectly legitimate.

Although Digicel is assumed (for the purposes of this discussion paper) to be dominant in the relevant market, that presumed dominance would not without limits. For example, Digicel is not a statutory monopoly protected from competitive market entry. There is competition from bemobile and, in the future, probably also from Telikom. Further, as summarised in Figure 6, there are also a number of possible responses to the price differential that Digicel's customers could make, some of which would not be beneficial to Digicel.

Figure 6: Possible responses by Digicel customers to price differentials

Possible responses by Digicel's customers to the difference in Digicel's on-net and off-net call prices	Potential effect on Digicel
Digicel customers might take another service from bemobile if they have many calls to bemobile customers	Not beneficial
Digicel customers may decide to live with the charge given their overall bill is acceptable	Beneficial
Digicel customers may encourage their bemobile contacts to switch to Digicel to reduce the charges paid	Beneficial
Digicel customers might move to bemobile if their calling pattern warrants	Not beneficial
Digicel customers might encourage their bemobile contacts to make the calls rather than receive them	Not beneficial

The overall benefit/disbenefit to Digicel of its price discrimination between on-net and off-net calls is not clear. Many of the possibilities identified in Figure 6 depend on the relationship of the customers calling each other (e.g. whether affiliated in a firm or family or not at all) and the attractiveness of the alternative services from bemobile. NICTA requires empirical data in order to form a more definitive view.

Specific questions for stakeholders

(10) In your view, is there any indication of anti-competitive price discrimination by Digicel?

Please provide argument and if appropriate evidence to support your views.

3.4 Summary of NICTA's tentative conclusions

NICTA has reached the following tentative conclusions:

- (f) the relevant market is the market for off-net call and SMS services by the retail customers of the mobile network operators (even though the complaint that initiated this inquiry relates only to calls from Digicel to bemobile customers);
- (g) there is a *prima facie* case that Digicel has SMP in the relevant markets;
- (h) there is no *prima facie* case of anti-competitive cross subsidy or predatory pricing by Digicel in the relevant market;
- (i) there is some evidence (albeit incomplete and not compelling in itself) that Digicel may be engaging in excessive pricing; and
- (j) NICTA has insufficient information to form a view on whether or not Digicel is engaging in anti-competitive price discrimination.

These conclusions are tentative and are based on the information currently available to NICTA and on the analysis summarised in this discussion paper. NICTA expects to be in a position to affirm or correct these tentative conclusions based on the information submitted to NICTA by stakeholders in response to this discussion paper. In the absence of any new information or evidence being, NICTA will be inclined to affirm its tentative conclusions and proceed to consider them against the retail regulation criteria specified in section 158 of the Act.

4 Consideration of retail service determinations generally

The purpose of the public inquiry process is to determine whether or not NICTA should recommend to the Minister that a particular retail service supplied by one or more specified operator licensees should be subject to a Retail Service Determination.

NICTA may only make such a recommendation to the Minister if NICTA believes that subjecting the retail service to a retail service determination would meet all four of the retail regulation criteria set out in section 158 of the Act. Those criteria are:

- (a) that making a retail service determination for the retail service in respect of an operator licensee for a particular period will further the achievement of the objective set out in Section 124, but disregarding Section 124(2);⁴ and
- (b) specifically, in relation to the competition objective, that –
 - (i) that operator licensee has a substantial degree of power in the market within which the retail service is supplied; and
 - (ii) in the absence of the retail service determination for that period, that substantial degree of power is likely to –
 - (A) persist in the market over that period; and
 - (B) expose retail customers to a material risk of higher prices and/or reduced service where they acquire the retail service from that operator licensee during that period; and
- (c) specifically, in relation to the efficiency objective, that the operator licensee will not be prevented from achieving a return on assets during that period sufficient to sustain investment necessary to supply the retail service; and

⁴ Section 124(1) of the Act states 'The objective of this Part [Part VI] and Part VII of this Act is to –
(a) promote effective competition in markets for ICT services in Papua New Guinea, to be known as the "**competition objective**", subject to –
(b) promoting the economically efficient use of, and the economically efficient investment in, the facilities by which ICT services may be supplied, to be known as the "efficiency objective".

Section 124(2) of the Act, which is to be disregarded in any consideration of the retail regulation criteria, states 'In determining the extent to which a particular thing is likely to further the achievement of the efficiency objective, regard shall be had (without limitation) to all of the following matters –
(a) whether it is technically feasible for the relevant ICT services to be supplied, having regard to –
(i) the technology available or likely to become available; and
(ii) the reasonableness of the costs involved; and
(iii) the effect of supplying the ICT services on the integrity, operation or performance of other ICT services or facilities; and
(b) the legitimate commercial interests of the access provider in supplying the ICT services, including the ability of the access provider to exploit economies of scale and scope; and
(c) the incentives for investment in the facilities by which the ICT services may be supplied, including the risks involved in making the investment.'

- (d) the aggregate likely benefits of making that retail service determination outweigh any aggregate likely detriments.

In the present case, it is too early to consider the nature or content of any retail service determination in any detail. NICTA is currently concerned primarily with determining the relevant market, determining whether Digicel or any other licensee has SMP in that market, and determining whether any licensee with SMP is engaging in any anti-competitive retail pricing behaviour in the relevant market. NICTA's response to positive findings (may or may not involve a retail service determination) will depend on what is discovered during the inquiry. If NICTA forms a view that a retail service determination may be appropriate, then that will be the subject of a specific consultation exercise as part of the present inquiry process.

NICTA would, however, like to take the opportunity of this discussion paper to outline its general posture in relation to the intervention in retail markets that are intended to be competitive and would invite stakeholders to comment on the same.

NICTA proposes to adopt the following principles to guide the general exercise of its powers in relation to retail price regulation. These principles are consistent with the objectives of the Act (specified in section 2 of the Act) and the regulatory principles identified in section 3 of the Act. These principles are not intended to (and cannot) replace or subjugate the retail regulation criteria but reflect NICTA's general disposition to retail price regulation.

The principles are intended to be general in their application, they have been developed as NICTA has worked its way through bemobile's complaint against Digicel, which necessitate NICTA considering for the first time how it will apply Part VII of the Act.

Principle 1: NICTA believes that retail prices are best determined by market forces provided that those markets are effectively competitive.

Principle 2: NICTA will be cautious about imposing retail price controls where a market is still developing and where those controls may distort market development and investment.

Principle 3: NICTA would prefer to refrain, if practicable, from intervening in the setting of retail prices and instead facilitate retail competition where it is necessary to do so through the regulation of wholesale markets.

Principle 4: If retail prices are predatory or excessive, NICTA would prefer to set price constraints in a form that still provides market participants with some flexibility in the setting efficient prices rather than establishing absolute price floors and/or price ceilings.

Principle 5: NICTA will not set retail price floors and ceilings based on the retail prices of other market participants unless those prices can be shown to be relevant, efficient and competitive.

Principle 6: If there is inadequate competition (i.e. dominance) in a retail market, and some form of regulatory intervention is considered necessary, NICTA will adopt measures that encourage greater and more effective competition either between existing operators or by encouraging the entry of additional competitors. NICTA considers that such an approach is likely to be more effective than simply adjusting the competitive balance between existing operators through retail price controls.

Specific questions for stakeholders

- (11) How should NICTA assess whether or not retail customers will be exposed to 'a material risk of higher prices and/or reduced service' in the absence of a retail service determination for the purposes of section 158(b)(ii)(B) of the Act?
- (12) What are your views on the six principles proposed by NICTA to guide its intervention in pricing in retail markets?

Please provide argument and if appropriate evidence to support your views.

Annex A: Inquiry terms of reference

Having regard to allegations made by bemobile Limited (“bemobile”) and its own preliminary investigations, and pursuant to Section 157 of the Act, NICTA has decided that a public inquiry be undertaken in accordance with Section 230 of the Act to determine whether or not NICTA should recommend to the Minister that a particular retail service supplied by one or more specified Operator Licensees should be subject to a Retail Service Determination. The services in question are call and SMS services provided by Operator Licensees supplying mobile services, generally, with particular reference to the off-net call and off-net SMS services provided by Digicel (PNG) Limited (“Digicel”).

The specific terms of the public inquiry are:

- (i) NICTA shall inquire and determine whether any Operator Licensee, and Digicel in particular, has established retail mobile service prices for on-net and off-net calls and SMS that, because of their levels and/or relationships, are an abuse of a dominant position in the market for domestic mobile calls and SMS or are otherwise anti-competitive and contrary to the objectives of the Act; and
- (ii) NICTA shall determine whether a Retail Service Determination is appropriate in the circumstances considered and having regard to the evidence that the public inquiry reveals, and, if so, NICTA shall recommend the content of such a Determination in accordance with Section 161 of the Act for the Minister’s approval.

Specific questions for stakeholders

- (13) Do you agree or not with the terms of reference for this inquiry? If not, what changes or additions would you make?

Please provide argument and if appropriate evidence to support your views.