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19 November 2004

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Dear Elaine

Indirect Access Public Consultation (Ref: CD (2003) 7) – Interrogatories

Thank you for the opportunity to respond to the outstanding interrogatories.

We feel it necessary to start our response with a top level view of the approach taken in telecommunications liberalisation in the Cayman Islands (“CI”). We discuss the choice by CI of an infrastructure based approach to establishing competition in our response to interrogatory 3. As we state, successful infrastructure competition would be preferable to reseller competition as the former will lead to a sustainable competitive environment with less need for ongoing regulatory intervention. Less intervention will create a regulatory environment with less uncertainty for investors. That results in a greater willingness to invest in new technologies and the provision therefore of more and better services. Of course network investment requires much greater risk taking than is required by a company seeking to enter a telecommunications market through indirect access alone. Investments in new networks should not be destroyed by effectively handing them on a plate to IA providers.

Therefore, the provision of indirect access should only be considered in relation to international ICT services provided solely over C&W’s fixed line network. We have responded to this consultation on this assumption and all of Digicel’s answers should be considered in this light. The question of indirect access is only relevant to C&W’s fixed network in our view because it is only C&W which has a position of dominance in call origination. It would be disastrous to attempt to implement indirect access over any other network. The costs to the future of CI ICT services would be so large that we have not attempted to quantify them in detail. If it had been suggested that IA would be mandated over new networks prior to liberalisation, for example, there would probably have been no investment in alternative networks. Thus, the lost opportunity for the CI would have been tens of millions of dollars and similar costs can be projected looking forward in terms of future lost investment. Mandating IA over new networks would send out a message that investors can not expect to be given a fair chance to recoup the significant risks they have to undertake in making their investments. Other potential network investors would take flight immediately.

If there remain roll out requirements for parties to provide alternative fixed networks, we believe that IA cannot be considered even over C&W’s fixed network for a substantial period of time. IA provision over payphones might be the only exception. The

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perspective of an investor must be considered to understand why IA should not generally be considered. A company which wishes to build out an alternative fixed line infrastructure will usually have to be certain, all other things being equal, that it will be able to beat the competition on important measures of competition such as the quality of customer service. As the Authority has suggested, there may be some level of customer inertia in the market which will mean that merely being able to match the incumbent would probably not be sufficient. A new entrant would have to believe that it had a reasonable chance of winning a sufficient number of customers within a reasonable period of time for its business plan to be viable. However if IA is permitted it will enable international call revenues to be rapidly stripped away from C&W and the CI by companies which had made relatively little network investment. This might well undermine the business case for alternative fixed network roll-out.

Before considering IA any further, Digicel feels that it is incumbent on the CI authorities to take a decision on whether they wish to concentrate on promoting alternative fixed line infrastructure. If that is the case, then we believe that the Authority is obliged not to progress further with IA. If IA is progressed and there remain obligations to roll out alternative fixed networks, then the Authority may, depending on the cost and quality of C&W fixed wholesale prices to resellers, find itself trying to enforce requirements for fixed line investment when it makes more commercial sense to become an international reseller only. In this situation the Authority would in effect be attempting to force companies to make inefficient investments which would of course undermine the objectives of the ICTA Law 2002. The alternative is to withdraw fixed roll-out obligations for other operators and to permit IA over C&W's network.

In the following responses Digicel has therefore tried to approach the questions on the assumption that all fixed line roll out requirements have been removed and that IA, and DAL provision, is being considered in respect of C&W alone. We notice that the Authority has asked many questions with respect to IA over new networks below. We have not repeated the points in the paragraphs above on every relevant occasion for the sake of brevity but the Authority should note that the previous paragraphs should be read as a strongly felt response to every such question.

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Question 1/ [All Respondents] Schedule 1 to the Liberalisation Agreement defines “Indirect Access” as “the method whereby a Subscriber is able to access international ICT services provided by another Licensee, through the ICT network and ICT services of the Licensee with whom the Subscriber is directly and physically connected.”

There are a number of potential technical means to enable a subscriber “to access international ICT services provided by another Licensee, through the ICT network and ICT services of the Licensee with whom the Subscriber is directly and physically connected.” These means include:

i) “equal access” or “Feature Group D”¹ [i.e., carrier pre-selection (1+ dialling) and call-by-call selection (101XXXX, plus the called number, where XXXX is the carrier identification code of the alternate carrier)];

ii) line-side access (i.e., access to the network of another IDD provider by dialling a standard local/domestic PSTN telephone number, combined with over-dialling for purposes of entering account numbers/PINs and destination telephone numbers)²; and

iii) use of dedicated access lines (“DALs”) (i.e., a wireline or fixed wireless access, functionally equivalent to a private line, separate from the subscriber’s regular PSTN or high-speed Internet access, which connects the subscriber’s equipment to an IDD provider’s switch and is dedicated to IDD calling) provided by a licensee other than the IDD provider.

A) Provide, for each of i) to iii) above, your company’s views, with justification, as to whether the method of access in question falls within the definition of Indirect Access (“IA”).

Digicel regards a method of accessing a network other than the one to which the subscriber is physically or logically connected, via the network to which the subscriber is connected, as constituting a form of indirect access. This means that both equal access and line-side access as described above constitute forms of indirect access service but the use of DALs does not. If a DAL was obtained by leasing it off C&W for example, then for all practical purposes it forms a part of the lessee’s network as the lessee exercises total control over the use of that DAL for the duration of the lease.

¹ Feature Group D (“FGD”) is described as “[t]he class of service associated with equal access arrangements. All facilities based IXC (InterExchange Carriers) and resellers of significance pay extra for Feature Group D terminations (connections), which is a trunk-side connection provided by the ILECs (Incumbent Local Exchange Carriers). Feature Group D is required for equal access, which allows phone users in the United States to pick up the telephone and dial 1+ to place a long distance call, with the call being handled by the IXC they have pre-selected. Without FGD, the user must first dial a 7- or 10-digit number, a calling card number and PIN number, and then the desired telephone number. FGD also is required for an end user organisation desiring ANI (Automatic Number Identification) information. Feature Group D also lets you dial around your preselected IXC to use another of your choice by dialling 101XXXX. See also 1+, 101XXXX, ANI, Equal Access, ILEC and IXC.”, Newton’s Telecom Dictionary, 2003.

² Sometimes referred to as “Feature Group A.”

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B) Identify and describe all current regulatory or tariff barriers to the use of access methods ii) and iii).

Ultimately it is the wholesale price of providing indirect access over C&W's network which will largely determine the extent to which competitors wish to enter the market. However, there is a lack of visibility of C&W's costs of origination. In the absence of full transparency with respect to C&W's costs, including the absence of accounting separation, it will always be difficult to judge whether C&W is offering a fair price for wholesale services and whether or not it is misallocating costs in an attempt to undermine competition.

C) Provide your company's views, with justification, as to the relative disadvantages/costs and benefits of the following scenarios for mandated IA:

As a general point it is likely to be the case that the longer the string of digits that have to be entered to make a call via an indirect access provider the smaller the chance that customers will use an indirect access provider. However customers may be more prepared to enter a long digit string if it is necessary only in respect of occasional international calls.

I) access method ii) is implemented alone:

Our answer assumes that this is relevant to C&W infrastructure only. Digicel is unable to assess overall the extent to which a line side access solution would be likely to result in a competitive outcome. It also depends on kind of competition the Authority is looking for and when – more rapidly emerging pressure on international call prices through IA or potentially greater benefits for consumers and less need for regulation from a multi fixed network operator environment. It may be that more occasional international callers such as some residential customers would be prepared to enter the long digit string necessary for line-side access. However, we imagine that it would be possible for many business customers to employ technical measures to overcome this problem which would render the length of the prefix immaterial.

II) access method iii) is implemented alone;

Our answer assumes that this is relevant to C&W infrastructure only. DALs seem likely to appeal to business users predominantly, as they provide higher capacity at higher cost. We are uncertain about the level of demand from businesses for making international calls alone although we imagine that it will be significant given the international nature of much of CI business. It would be helpful if we had some idea of the extent of the fixed international traffic which originates in CI. We believe that DALs would generally not be helpful to individual residential customers.

III) access method iii) is implemented alone and mandated only for DALs provided by C&W;

See above.

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IV) access methods ii) and iii) are implemented together;

Our answer assumes that this is relevant to C&W infrastructure only. This option would provide both a lower cost and higher cost solution to better meet the varying demands of customers. However, we are uncertain about the potential demand for DALs for international calls only, even if we consider business customers alone.

V) access methods ii) and iii) are implemented together, with iii) being mandated only for DALs provided by C&W;

We have assumed that DALs would only be mandated from C&W in the answer above. The Authority should not in our view be contemplating mandating DALs or line-side access from other operators.

VI) access method i) is mandated for C&W fixed switched local exchange accesses only;³

This will reduce prices and undermine alternative fixed line infrastructure providers. We envisage that cost based regulatory intervention will result in a reduction in wholesale prices which in turn will reduce retail prices. Retail margins will also be reduced.

VII) access method i) is mandated for fixed switched local exchange accesses provided by any licensee;

This should not be contemplated in our view. It is only relevant to operators with a dominant position in the origination of international calls. Even suggesting regulating access over the infrastructure of new fixed line providers will stop investment.

VIII) access method i) is mandated for all (i.e., fixed and mobile) providers of switched local exchange accesses;

This should not be contemplated for reasons mentioned above. It would be a disastrous signal to investors in competitor networks providing CI ICT services. Access over C&W's fixed network only should be considered.

IX) scenarios V and VI combined;

No scenario which involves providing indirect access over new entrants networks should be contemplated if CI wishes to encourage investment in networks.

X) scenarios IV and VII combined; and

This should not be contemplated.

XI) scenarios V and VII combined.

This should not be contemplated.

³ For the purposes of the interrogatories, the terms "fixed-access" and "fixed-line" shall include both wireline and fixed-wireless accesses.

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Other Comments

VOIP calls would utilise numbers from the North American Numbering Plan. It would be necessary for translation between IP and numbering plans to take place for origination from and termination on regular voice phones.

We think that if VOIP is permitted then origination and termination of VOIP calls should only be permitted subject to VOIP providers meeting best industry practices in terms of quality of service. The relevant ITU standards can be referred to in this respect.

With respect to the question of the substitutability of fixed and wireless services we would need access to all C&W's costs to make clear judgement. C&W did of course say in its submission to the Authority on Mobile Termination dated 19 March, 2004 that fixed and mobile services are in different markets. We believe that fixed and mobile wireless services are unlikely to be in the same market.

D) List all disadvantages/costs and benefits of each of scenarios I) to III) and VI) to VIII) in part C) above and provide your company's views, with justification, as to whether each such disadvantage/cost or benefit is reliably and cost-effectively quantifiable. In all cases in which the disadvantage/cost or benefit, other than those costs covered by question 16 below, is considered to be reliably and cost-effectively quantifiable:

As stated previously indirect access over C&W's fixed network only should be contemplated. It would severely, and perhaps fatally, undermine investment incentives to invest in alternative infrastructure if indirect access or DAL provision was mandated in respect of a new entrant. In other words the costs would massively outweigh any possible benefits. There is no need therefore in our view to take that part of the analysis further. Consequently, what we say below is based on the assumption that access relates to C&W's fixed line infrastructure only.

Equal Access to C&W Fixed Infrastructure Only	
Benefits	Costs
Retail prices would fall significantly due to likely lower regulated wholesale charges combined with competitive pressure on retail margins.	Price drop would reduce incentives to invest in alternative fixed infrastructure.
Higher volumes of residential and business calls using alternative international operators due to lower prices.	Less significant competition in the medium to long term.
Customers would have a choice of international provider	Greater need to regulate in the medium to long term. Regulation will inevitably always be less efficient than outcomes from a competitive market – how much less efficient is hard to judge but even if market revenues are 10% less than they would have been as a result of a market governed by regulatory rules instead of

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	free trade, the cost would be very large.
The competition might drive improvements in C&W customer service	Interconnection costs and data amendments to switches.
No need for customers to worry about losing their numbers by using another provider.	Resources of the Authority and market players taken up when dealing with any disputes when for example arriving at wholesale prices or dealing with any illegitimate means of customer win-back that might take place. We envisage that this will amount to at least the equivalent of 10 skilled professionals (from the Authority and operators) working for 6 weeks per year full-time for the first couple of years on this issue.
	Management of indirect access codes.
	Establishing Contracts
	Additional bandwidth needed by parties already interconnecting with C&W.
	Opportunity costs – the Authority could assume that all monies spent or lost as indicated above could be invested in some other part of the industry and assume a 10 to 20% return could have been made on such investment.

Line Side Access to C&W Fixed Infrastructure Only

Benefits	Costs
As for equal access except to a somewhat lesser degree – because the technology not quite as easy to use. Businesses could get around the requirement to enter a significant number of digits before making calls by re-programming PBXs. However residential customers could not do this.	Very similar to equal access costs above.

C&W DALs

Benefits	Costs
Regulated access to DALs could provide access to much lower cost high capacity links which businesses with significant international call volumes might find suitable.	Similar to above but affects would affect mostly businesses.
Management control of the DAL rests with the lessee, therefore the lessee can control, quality of service and service	

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delivery.	
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Other Comments

The Authority asked for quantitative estimates of the costs and benefits. In order to do this Digicel would need to be given at least the following information:

- details of C&W's costs of origination – wholesale and retail;
- an estimate of price demand elasticities based on volume changes in response to C&W price changes for international calls;
- costs of interconnection and reconfiguring C&W's network for each of the options presented.

E) Provide your company's views, with justification, as to which, if any, of the scenarios set out in part C) above should be mandated.

If the CI wish to encourage infrastructure competition build then none of the above as set out in part C) should be implemented based on an indirect access consultation. If the CI is not so concerned about this then a policy change would be needed and fixed roll-out obligations for providers other than C&W should first be withdrawn.

The Authority may however wish to ask whether new entrants believe that provision of DALs by C&W should be mandated in order to assist investors in alternative networks who wish to use DALs in combination with their own networks to provide services generally to business customers.

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2. In ICT Decision 2004-5 (Interim), the Authority noted, at paragraph 29, that:

...the absence of number portability combined with no mandated indirect access, may inhibit the roll-out of competition in the fixed-line telecommunications market. For instance, an entrant to the international services market must not only offer international services but also local exchange services in order to compete against the incumbent. Furthermore, it must offer this service bundle at a price that is sufficient to overcome customer inertia including convincing the customer to change his existing telephone number.

[All Respondents] Provide your company's views, with justification, as to whether each of access methods ii) and iii), as specified in the preamble to question 1) above, are likely to be attractive as a means to originate fixed-access traffic primarily in the case of large business customers and relatively unattractive in the case of residence and small business customers.

Digicel does not have statistics with respect to the success or otherwise of line side access in other jurisdictions with respect to the provision of services to residential and small business customers. The only way to attempt to assess the potential for significant take up would be to consult with these sorts of potential customers in CI. The attractiveness of line side access would it, appears to us, hinge on at least the following three factors:

- i/ the number of digits it would be necessary to dial to make the call. However large businesses could virtually eliminate this as an issue by reprogramming PBXs;
- ii/ the frequency with which calls are made – the fewer that are made the more likely that people are to be prepared to dial the long digit string necessary. Again this is probably not an issue for large businesses;
- iii/ the size of the cost saving – if there is a large cost saving to be made then people are more likely to be prepared to make the call. Conversely over time, as cost savings become smaller it seems possible that competition via line side access would dwindle for residential and small businesses which have to dial the full digit string. It seems to us that that customers might be less prepared to dial several more digits if the saving to be made is very small. In contrast, as indicated, large businesses with their own PBXs may not care either way.

We envisage that access to DALs from C&W, as opposed to line side access, would enable competitors to provide significantly lower cost services to large businesses in competition with C&W. We agree that DALs are unlikely to be attractive to residential consumers, or, for the most part, to small business customers.

A) [All Respondents] Compare, for each of Grand Cayman and the Sister Islands (Cayman Brac and Little Cayman combined), the economics of facilities-provisioning and the relative magnitude of barriers to facilities-provisioning and other barriers faced by entrants in each of the following markets or market segments:

**residence MDU fixed-line access;
residence non-MDU fixed-line access;
business fixed-line access; and
IDD in the presence of mandated IA.**

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As previously indicated much of the investment that has taken place as a result of market liberalisation probably would not have occurred if IA for IDD calls had been mandated from the outset or if it had been suggested that shortly after liberalisation this would be mandated. The uncertainty created by mandated IA of this sort is enough to have made it non-viable to have commenced operations. Digicel can also say that it would have been much more circumspect in making any commitments with respect to the build out of fixed services if it had believed that IA would have been introduced in any form over any network in the CIs prior to or soon after fixed market liberalisation.

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C) [All Respondents] Provide your company's views, with justification, as to whether i) entry in the IDD market alone as a means to acquire a customer base and a revenue stream and demonstrate competence to end-users may facilitate entry into the local access/domestic market, and ii) the extent to which opportunities for such entry will be compromised under each of the following scenarios:

Irrespective of the type of access, it should be easier to generate a revenue stream via reselling international calls which in theory could then be used to invest in the national market. However, if there is no requirement for such resellers to invest in a substantial network it seems more likely that what will happen is that the revenues from international calls will be taken and invested elsewhere such as in providing an international call service in another country. This would make the most business sense for a company which enters this area of service provision – to stay with the same business model and go after the highest margins possible based on that model. If margins shrank sufficiently most IA IDD providers might then find that it made economic sense to exit a particular national market altogether.

I) no IA of any form is mandated;

If no IA is mandated it seems likely to have two effects:

- i/ there will be greater incentives for investors to build out national networks;
- ii/ international outgoing call prices will remain at a higher level until network competition becomes established;
- iii/ there will be less need for regulatory intervention in the medium to long term.

IA might appear to be a quicker win, but in the medium to long term it may be worse for CI. In many jurisdictions IA has been permitted because fixed network competition was not developing fast enough for the liking of the authorities, although it appears to us that given the high per capita income of the CI and the population density, there may be more chance of economically viable competing fixed network roll out.

II) access methods ii) and iii), as specified in the preamble to question 1) above, are mandated but equal access is not mandated.

With respect to line side access – it seems possible that the impact would be slightly less pressure on the prices of international calls from residential customers and small businesses, but equally less damage to the incentives for fixed line roll out.

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With respect to DALs – this would enable more pressure to be put on international business calls. The damage to incentives to invest in fixed networks if DALs were made available to resellers without their own national fixed networks could be severe: this would enable reseller competitors to cherry pick revenues from CI telecommunications and move those revenues abroad.

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4. [All Respondents] In supplementary comments, dated 17 December 2003, filed in response to the Authority's Public Consultation on Indirect Access (Ref: CD (2003) 7), C&W argued that IA is a form of interconnection and that certain consequences necessarily flow from that characterization:

There should be no doubt that indirect access is an interconnection service. This makes logical sense in view of the definition of interconnection services in Cayman law, but it is also acknowledged to be so by the simple fact that provisions relating to indirect access are covered in the ICTA (Interconnection and Infrastructure Sharing) Regulations 2003.

As such, the ICTA must recognize that there are provisions for the applicability of any indirect access mandate and cost recovery.

With respect to the Licensees subject to mandated indirect access (Questions 1.1 and 1.3), the regulations require broad application interconnection obligations. Paragraph 4(1) of the Interconnection and Infrastructure Sharing Regulations states "In accordance with the provisions of section 44 of the Law, a licensee shall not refuse, obstruct or in any way impede another licensee in the making of any interconnection or infrastructure sharing arrangement." Thus, if the ICTA chooses to mandate indirect access, the ICTA must oblige all relevant licensees to stand ready to provide it.

With respect to cost recovery (Question 7.1), the ICTA's suggestion that provisioning costs be borne by each of the licensees obligated to provide indirect access violates existing regulation. Paragraph 47(1) clearly states that "the cost of making any interconnection to the ICT of another licensee shall be borne by the licensee requesting the interconnection."

A) Provide your company's views, with justification, as to whether each of access methods i) to iii), as specified in the preamble to question 1) above, is appropriately considered to be a form of interconnection.

We believe that the starting point is to consider what interconnection means in CI. The interconnection regulations define the term as "the physical or logical connection of public ICT services of different ICT network providers". So it is necessary for there to be a connection and it is necessary for the connection to be between a network. However, not every piece or combination of pieces of telecommunications infrastructure can be deemed to constitute a network.

If this test is passed then any indirect access provision would involve interconnection. Thus our initial view is that equal access, line side access and DAL provision could constitute interconnection services.

However, and contrary to what C&W says, there is no requirement in the ICTA Law 2002 requiring the binary choice of mandating that either all or no licensed ICT network providers should offer indirect access. The interconnection obligations make this explicit. They state that "Indirect Access shall be mandated to be provided by the Authority after it has determinedthat the benefits to the general public from such mandate will outweigh the costs to all parties and that the mandate will not impose an unfair burden on any licence holder". It is clear from the regulatory regime for ICT in the Cayman Islands that it has been deemed to be in the interests of the public and to be fair to regulate licence holders asymmetrically ie dependent on their market position. Therefore it is recognised that there is a possibility that the interests of the public and fairness may be best served by imposing particular obligations on some operators and

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not others. In this case it allows the Authority to require indirect access provision from some licence holders but not others.

C&W's statement is such an unreasonable interpretation that in our opinion no court could agree with it. C&W is suggesting that the interconnection regulations have been written perversely such that requirements with respect to the provision of indirect access could not be applied in the public interest. For example, if the Authority decided that it was in the public interest for C&W to provide indirect access (Digicel doubts whether this is the case currently) but not in the public interest for other licensees to do so, the Authority would be unable to intervene in the optimal way. In other words the Authority would be prevented from maximising public benefits from telecommunications service in CI and prevented from attempting to ensure that services are provided as efficiently as possible. Digicel submits that that is nonsensical. The Authority can mandate indirect access on some networks and not others if it believes that it is in the public interest.

B) Provide your company's views, with justification, as to whether the distinguishing characteristic of interconnection services is that they are those services which are necessary to allow for the completion of calls between customers of different carriers where one of the carriers involved cannot, under any circumstances, avoid making use of the other carrier's network.

We do not feel that this is a correct definition. In theory it is nearly always possible to avoid making use of another carrier's network. But it is unlikely that a new entrant would enter a market if it could not interconnect with an incumbent monopoly operator.

Interconnection is mandated because it is anticipated that in the case of a network without any form of market power that network would seek itself to interconnect with a number of other networks which have subscribers. In other words interconnection rules are an attempt to proxy what would happen in a competitive market. Take the following example and *assume that it represents an immature and therefore relatively unstable market*:

- a territory in which 10 fixed network operators each had 40% geographic coverage (which all overlapped to some extent and which covered all subscribers between them) but only 9% of all subscribers each.

It is anticipated that most or all of these networks would want to interconnect for purely commercial reasons for their respective customers to originate calls to each other. This is because none of the networks has market power. However, none, or virtually none, of the networks, no matter how small is likely to want to sign up an IA provider even though the networks do not have market power. This indicates that it would not be appropriate to mandate IA access as this would not lead to an efficient outcome. The only way for an IA provider to add value would be either by winning over customers of other networks such that more of the wholesale volumes flowed over one network, or by providing superior customer service, or by persuading customers who had no fixed connection to sign up. However, network operators will normally be just as well placed, if not better placed, to carry out these tasks through their own marketing efforts during the first few years of market liberalisation. If it was believed that IA providers could add value then these network operators would sign them up to help them compete with other networks without requiring a mandate from the regulator.

Interconnection should be mandated on incumbents if under reasonably competitive market conditions they would probably offer interconnection to at least a few operators but have chosen otherwise given actual market conditions. This is not an exact science

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however and the best practice approach has been to require historic monopolists to interconnect with at least those who have rolled out significant infrastructure.

So in our view it is possible to say that the distinguishing characteristic of interconnection services is that they are:

- those services which allow for the completion of calls between customers of different carriers; and,
- which in a competitive market would probably be agreed on by some market players based on commercial incentives alone.

A note of caution however, even in an unregulated market with multiple competing networks each with only a small percentage of subscribers it might not make commercial sense for a network to connect with every other network for a host of reasons. This could be down to technical problems to an inability to strike up a reasonable working relationship, to poor quality operation of some of the other networks, or because of costs. We are not therefore advocating that networks should be prepared to interconnect with everybody who requests interconnection. This could lead to a sub-optimal outcome. We think that the regulator should retain the discretion to allow operators not to interconnect if this would not be in the public interest.

To illustrate why interconnection might not always be in the public interest we take the example of the recent technology boom. If IA were for example introduced in CI at the height of such a boom, and irrational exuberance prevailed, and if the incumbent were required to interconnect with every requestor, there would be excessive and therefore inefficient investment in IA provision in CI at the expense of the public interest.

C) Provide your company's views, with justification, as to whether each of access methods i) to iii), as specified in the preamble to question 1) above, is consistent with the characterization set out in part B) above.

As indicated Digicel does not agree with the characterisation given by the Authority above. Theoretically it is nearly always possible to replicate a network. Therefore if this were the basis for requiring interconnection it might not suffice to justify i to iii.

However, even based on Digicel's characterisation we do not feel that there is likely to be a justification at this time for any new entrant network operator to interconnect with a company that does not have any subscribers on CI or therefore to provide any of services i to iii. This indicates that imposing interconnection would result in an inefficient market outcome. If a new entrant thought that an IA provider could add value to the network in terms of optimising network usage it would reach a commercial agreement. We do not perceive that any significant value could be added to a new entrant's network at this time by an IA provider: in the few years after market liberalisation a new entrant network operator attempts to gain customers and optimise use of its network through its own marketing efforts and is usually likely to be able to do so better and certainly no worse than anybody else would be able to manage. A new entrant network operator might have more reason to sign up an IA provider when the market matures and is trying to eek out an extra one or two per cent of wholesale market share in the face of a static market but not beforehand. This indicates that the role of IA with respect to new network entrants is, if it exists at all, incremental, and not something to consider until the market becomes more stable.

With respect to potential provision by C&W of services i to iii, we think it might be useful to adopt a modified version of one of the previous scenarios by way of illustration.

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Assume that C&W's fixed business was broken down into 10 companies each with 10% of C&W's fixed line subscribers and each with 100% geographic coverage (due to interconnection), such that each company had 9% of the total possible CI subscribers. Also assume that the market shares of the 10 companies had been fairly static for a significant length of time. In this situation it is conceivable that some of the 10 companies might seek to sign up an IA provider in an attempt to gain a small market advantage. For example the IA provider might offer the prospect of providing cheaper or better quality customer service which would enable the network operator to win customers off other network operators at the wholesale level. Alternatively the IA provider might have a very strong brand which would appeal to a particular sector of the market.

However given total ownership by C&W of fixed subscribers it has little incentive to sign up an IA provider. To do so seems more likely simply to reduce its profits by enabling price competition.

Thus if there was no prospect of network competition there would probably be a case for imposing indirect access on C&W's fixed network. However given that the CI believes that fixed network competition has a chance it should not undermine this by enabling IA operators, with relatively minor investment in CI, to destroy fixed line margins. Of course, if the CI authorities have a change of policy and decide that alternative fixed network roll-out will take too long to have significant effects then fixed roll-out obligations on other operators can be withdrawn and IA can be considered over C&W's fixed network.

D) Provide your company's views, with justification, as to whether subsections 4(2)(d), 6(j)(iii), 22(2), 25 and 28 of the ICTA (Interconnection and Infrastructure Sharing) Regulations, 2003, would in combination provide the basis for requiring certain interconnection or infrastructure services to be made available only by certain Licensees.

Regulation: 4(2)(d) - Public interest

As indicated we believe that in the public interest there is an overwhelming case for restricting any requirement in terms of equal access, line side access and DAL provision to C&W only. In fact at this stage we believe that the case for requiring such access even from C&W is not clear since the Authority still believes that fixed line infrastructure competition still has a chance of succeeding. By not requiring any of these services from new entrants previously CI have already attracted tens of millions of dollars of investment in new networks and can hope to attract further investments by steering clear of destroying the business case for infrastructure roll out by new entrants through such impositions.

This regulation gives the Authority the right to require IA provision and the like from some network operators and not others if it is deemed to be in the public interest to do so.

Regulation 6(j)(iii) Timely and economic

The CI policy is to give infrastructure competition a chance. In that context what is timely and economic is different from a policy approach based on the assumption that infrastructure competition cannot succeed. In an infrastructure build environment it will be timely and economic if significant price competition for example takes root over a period of a few years – it takes time to roll-out a network and recoup the capital cost. If service based only competition was the policy on the other hand then timeliness would point to a year or two for significant pricing competition to emerge.

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Thus based on our understanding of CI ICT policy the Authority has no need to require IA provision over any network at this time.

Regulation 22(2) – rejection of agreements for non-compliance

We believe that these provisions relate more to the nature of the agreement when written than whether a particular form of agreement can be reached in the first place.

Regulation 25 - Interconnection agreed based on laws licence regulations etc

This is the corollary of regulation 22(2).

Regulation 28 – Efficient utilisation of infrastructure for sake of efficient competition

This again appears to be more about the terms of agreement once entered into, for example the basis on which IA pricing might be based.

E) Provide your company's views, with justification, as to whether the costs associated with "general system provisioning costs" (i.e., those costs which are one-time system set-up costs incurred by the access network licensee in modifying network and support systems to enable the provision of carrier pre-selection and call-by-call selection) can also be considered to be a cost associated with providing an end-user feature or enabling end-user choice, as opposed to merely a cost caused by the provision of a service to other Licensees.

We believe that this question is driving at whether in the case for example where C&W had to provide IA it should recover the cost of interconnection with IA providers from them or should absorb the cost itself.

We return to the question of the commercial incentives that might exist in a competitive market. We think that in a newly liberalised market where alternative infrastructure provision is the aim, the Authority's starting point should be to consider whether a new entrant would interconnect with an IA provider. If the answer is no then there is no commercial incentive to interconnect and any costs of interconnection would have to be borne by the interconnecting party.

In the case of C&W the Authority should imagine a theoretical mature market consisting of 10 networks with 100% geographic coverage due to interconnection and each with about 9% of the total possible number of fixed line subscribers. These companies might seek to attract a good IA provider to seek out incremental competitive advantages in the face of static market shares in the knowledge that any advantage provided by such an interconnecting party might give one of their competitor's an advantage. That advantage might even be based on something like brand image. However, even these network companies would not interconnect with every IA provider that requested access – it would be a question of the value it was perceived that they could add.

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5. [All Respondents] Provide, for each of access methods i) to iii), as specified in the preamble to question 1) above, your company's views, with justification, on the conceptual framework or considerations that should guide the Authority's decision as to which Licensees (i.e., C&W fixed accesses only, all fixed access providers, both fixed and mobile access providers, other (specify)) should be subject to a requirement to make the access method in question available in the event that the Authority determines that mandated availability by at least certain access providers is required.

The approach should be:

- i. Do the CI wish to attract investment in fixed and mobile networks which compete with C&W?
- ii. Has investment in fixed and mobile networks competing with those and C&W already taken place?
- iii. If yes, then the question of IA for competitors to C&W should not be considered until at least 5 years after market liberalisation;
- iv. If no, is it possible for significant fixed and mobile network competition to become established in the 5 years following market liberalisation?
- v. If yes, then no IA should be considered again until at least 5 years following market liberalisation.
- vi. If no, then IA can be considered provided there are no network roll out obligations on any licensees.
- vii. It must then be assessed whether IA market entry will be attracted by regulated wholesale rates for equal access, line-side access and DALs for IDD services.

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6. At paragraph 11 of its comments dated 12 December 2003, C&W raised a concern that mandated IA may create an uneconomic or artificial separation between IDD and domestic services:

If the ICTA proceeds to impose IA before allowing current policies to work. Then we must assume its objective with IA is more narrowly focused: to create a vertically separated mode for the provision of international voice services, i.e., a decoupling of international and domestic services. Cable & Wireless believes that, while undoubtedly likely to provide consumers more choice in the short term, this objective is a relatively unprincipled approach to imposing regulation: amounting to creating competition for competition's sake. It is unlikely to create an efficient market structure in the long term and will therefore result in a sub-optimal outcome in terms of consumer benefit.

C&W also suggested, at paragraphs 8 and 9 of its 12 December 2003 comments, that the fixed-access and mobile IDD markets may not in fact be separate markets and that, as a result, competition from and between mobile carriers will impose discipline on pricing for IDD originated from fixed-lines:

We can assume that the ICTA is concerned that the incumbent's control of the fixed network gives it market power to control prices and limit choice in international calling services. But whether the incumbent possesses market power in international services depends on whether there is a separate market for fixed international services or whether fixed and mobile international calls are substitutes for each other. If consumers can elect to make international calls either from a fixed or mobile phone, there will be competition in the market for international voice services, which will be tied to the competition in the domestic access market.

...If the ICTA's objective is to achieve greater consumer choice and lower prices through fostering competition in international voice services, then the entry of various new mobile and fixed domestic service providers will ensure the development of a vigorously competitive market in the Cayman Islands, and lower prices, for international voice services. This fact has been evident in all jurisdictions in the Caribbean where international liberalization has occurred, even in the absence of a requirement to provide IA. Cable & Wireless notes that, generally, this development has occurred whether the competition is introduced in either the fixed and mobile markets: lower prices for mobile-originated international calls have led to lower prices for fixed-originated international calls. Fixed network must lower prices in order to remain competitive and not lose traffic to the other networks.

A) [All Respondents] Provide your company's views, with justification, as to whether the market(s) for IDD calls originated in the Caymans constitutes a market or markets separate from domestic calling and access.

Digicel believes that IDD calls and domestic calls are in separate markets in the CI. Digicel has not attempted to carry out a full competition analysis but a quick run through the usual approaches for a market analysis ie considering the lack of demand and supply substitutability point in this direction.

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B) [All Respondents] Provide your company's views, with justification, as to whether Cayman-originated IDD calls from fixed-accesses and Cayman-originated IDD calls from mobile accesses each constitute separate markets.

In this respect we agree with C&W's submission to the Authority on mobile termination dated 19 March, 2004 that fixed and mobile services are in different markets. While current rates for calling internationally from C&W fixed lines are comparable with rates for calling from C&W or Digicel mobiles internationally, we believe that this reflects simply the fact that C&W's fixed line business is making large profits on international calls. Prevailing prices are a guide to market definition when they stem from relatively immature or competitive markets. But care must be taken when considering prices in an environment dominated by an historic monopolist as prices may be well above cost. Digicel might be able to confirm that its views were correct if it had access to the relevant information about C&W's fixed line costs.

The large profits on international calls from C&W fixed lines represent an attractive proposition which might help to justify alternative fixed network build out provided they are not eroded by permitting relatively low cost IA entry in to the Cayman market place.

C) [All Respondents] Provide your company's views, with justification, as to the degree of demand substitutability in the Caymans context, for each of residence, small/medium business and large business customers, of each of i) IDD calls originating from fixed-accesses and IDD calls originating from mobile accesses, and ii) fixed-access and mobile access, taking into account in both cases issues related to:

**the pricing structure for domestic voice calling;
the pricing structure for optional local calling services;
the need for or convenience of mobility;
differences in network reliability, voice quality and data throughput;
spectrum availability and capacity;
the ability for wireline accesses to provide network power to telephone sets;
mobile hand-set battery life;
mobile hand-set cost recovery;
the lack of fixed-to-mobile number portability; and
in the case of medium and large business customers, the costs of and barriers to switching from fixed to mobile origination imposed by long term contracts and complex customer networks.**

We are necessarily forced to begin our response to this question with the caveat that we do not have access to C&W's costs of fixed origination. This makes it harder for us to make definite statements about the degree of demand substitutability. However, a quick survey of information on the internet revealed for example that residential per minute calls to India from C&W's "SmartChoice" package are 157% of the cost of calls from the UK using the incumbent's (BT's) "Together" package (the two packages appear to be similar in the underlying monthly cost although C&W do not appear to explain on their web site what is available under each of the SmartChoice options which makes comparisons harder). Calls from C&W are about CI\$0.55 compared to about CI\$0.35 from BT.

It may be that C&W are offering bespoke fixed line offerings to corporates in CI which are much cheaper than rates which are in the public domain, but Digicel does not have

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access to this kind of information. We suggest that the Authority investigates the existence of bespoke offerings to see what these indicate in terms of demand substitutability with mobile originated IDD calls.

There is of course at least one clear basis for differential charging of calls originated from fixed and mobile phones which can account for a measure of price difference without there being a suggestion that mobile and fixed origination are not in the same market. This results from the additional value often associated with being able to originate a call from a mobile phone.

However, the market positioning in terms of prices in CI is unusual. What we believe to be happening is that fixed origination prices for IDD calls from C&W taken as a whole are likely to be well above cost and have been priced similarly to mobile calls which, in contrast, are competitively priced. This means that it is not possible to apply the usual SSNIP test when looking at market definitions. A small increase over the prevailing rate in the price of fixed calls may well lead to a significant transfer of calls to mobile. However it would probably take a larger increase in mobile prices to make people transfer significant numbers of calls to fixed because of the intrinsically greater value of being able to make many calls from a mobile phone. Customers would be prepared to pay a premium over the cost of a call from a fixed line to make a call from a mobile phone.

In summary we believe that fixed calls are likely to be represented by a high cost gradient with residential prices being furthest above cost leading slightly 'down' to corporate rates which would still be well above cost but perhaps not to quite the same extent. Mobile calls are in contrast competitively priced. Thus it is not possible to draw many conclusions about substitutability based on existing prices. In order to carry out a meaningful analysis it would be necessary to establish what a cost based rate for providing each of fixed line services i to iii would be.

D) [All Respondents] Provide your company's views, with justification, on the usefulness of market definition analyses in determining whether to mandate IA given that the structure of the IDD market, and whether it exists or can function as a separate market, is itself largely determined by the nature and scope of any decision to mandate IA.

As we have explained above, we believe that the CI authorities have chosen a market liberalisation approach based on encouraging both fixed and mobile infrastructure roll out. On that basis there is no need to consider the introduction of IA in the near future as it would defeat the high level objectives for CI. If that is the policy of the CI, there is no need to carry out any market analysis, no more than there would have been any point in carrying out a market analysis if C&W had been permitted to continue to be the only fixed and mobile operator in CI.

If the Authority deems that this infrastructure policy should be abandoned in some respects and determines that fixed infrastructure competition will not happen sufficiently quickly then the CI would need first to strike out all obligations in respect of competitive fixed infrastructure roll-out. To continue with such obligations for any operator should C&W be forced to provide IA would probably result in an attempt to force inefficient investment in alternative networks. If C&W were forced to provide IA it may be more efficient for Digicel to invest in its own IA IDD service instead of building any fixed network.

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The question of the need for IA, including the existence of any market for international calls originated from fixed lines, and the question of dominance, could then be analysed thoroughly.

E) [All Respondents]

i) Provide your company's views, with justification, as to whether it is reasonable to expect competition from and between mobile carriers to impose discipline on pricing for IDD originated from fixed-accesses and describe in detail the market mechanisms, in terms of customer switching behaviour, that will bring about such discipline, taking into account, among other things, your company's response to part C) above.

As indicated previously the first step is to assess what prices would be reflective of cost based origination from C&W fixed lines. Until that is done it is not possible to carry out this analysis. In our opinion C&W fixed line IDD prices are likely to be well above cost. If fixed prices were in any way competitive there might become apparent that mobile prices could not at this stage in the market at least impose any constraint on fixed prices.

ii) Provide your company's views, with justification, as to whether any such pricing discipline would depend largely on those customers with both fixed and mobile access shifting or allocating their calling between fixed and mobile accesses depending on relative prices.

Given that we believe that C&W's fixed line IDD calls are well above cost this kind of analysis is not meaningful – it would be meaningful if fixed line IDD prices were more competitive as a result of competition in fixed line origination.

iii) Provide your company's views, with justification, as to whether long-term contracts, complex customer networks, large numbers of employees, concerns over service quality and reliability, etc., may impede traffic shifting or allocation of the type referred to in ii) above by medium or large business customers and as to whether, as a result, any meaningful degree of traffic shifting is likely to be feasible only for residence or small business customers.

We believe that this may not be a fruitful line of enquiry if cost reflective fixed prices reveal a lack of sufficient substitutability between fixed and mobile, as we believe may well be the case, and as C&W alleged was the case in March this year. The first step however is to assess whether CI is committed to giving infrastructure competition a chance. If the answer to this is no then cost based fixed prices should be assessed to undertake a meaningful analysis of the international calls market for fixed originated calls.

G) [All Respondents] In the event that evidence based on experience in other developed countries was relied upon in the responses to C), E) or F) above, provide/indicate for each such jurisdiction:

i) the current mobile and fixed-line penetration rates as proportions of both households and population;

Research on residential consumers in the UK during May 2003 revealed that 91% of homes owned a fixed line; 75% of UK adults used or owned a mobile phone and 85% of adults had at least one mobile.

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ii) the mobile and fixed-line penetration rates for any one year in the 1987-1990 time frame;

Not known.

iii) whether fixed-line local exchange service has traditionally been priced on a usage-sensitive basis;

Yes

iv) whether fixed-line local exchange service is currently priced on a usage-sensitive basis;

Both usage sensitive and flat rate packages are available.

v) whether indirect access for long distance (either domestic, IDD or both) calls originated from fixed-line accesses has been mandated and, if so, the form of IA mandated, the date on which it was implemented and the service providers for whom it was mandated (incumbent only, all providers, other (specify));

In the UK IA was permitted from the start of market liberalisation in 1984. CPS was introduced in December 2000. It is important to note that IA was mandated only on the dominant ex-incumbent fixed line provider.

vi) whether indirect access for long distance (either domestic, IDD or both) calls originated from mobile accesses has been mandated and, if so, the form of IA mandated, the date on which it was implemented and the service providers for whom it was mandated (incumbent only, all providers, other (specify));

IA was mandated for 2 of the 4 main mobile operators in the UK in mid 2000 (Vodafone and O2), 15 years after they commenced operations, based on a finding that these two mobile operators had "significant market power" (a pseudo-dominance threshold) in mobile call origination but subsequently withdrawn in 2003. No IA operator ever commenced operation under the mandated access terms. Access would have been provided by means of dialling a prefix before the subscriber number.

vii) the date on which fixed-line local exchange access competitors began commercial operations, if applicable;

Not known.

ix) the average monthly revenue per fixed-line residence customer: a) based on most recent information available (specify period), and b) at the time of market entry by fixed-line access competitors;

See

http://www.ofcom.org.uk/research/industry_market_research/m_i_index/telecoms_providers/fix_t_mkt_info/

x) the average monthly revenue per mobile residence customer: a) based on most recent information available (specify period), and b) at the time of market entry by mobile access competitors; and

See

http://www.ofcom.org.uk/research/industry_market_research/m_i_index/telecoms_providers/q2_0304.pdf

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xi) a comparison of standard rates for IDD calling from residence fixed-line accesses with those for IDD calling from residence mobile accesses: a) based on most recent information available (specify period), and b) at the time of market entry by mobile access competitors.

See above for available information.

[C&W and other Mobile Licensees only] Provide your company's views, with justification (including experience to date in the Caymans and evidence from other jurisdictions), as to whether price competition for mobile services could be expected, in the absence of mandated carrier preselection, to focus primarily on a) effective per-minute rates for local/domestic calling as reflected in monthly and additional per minute charges, b) charges for mobile-originated IDD or c) local/domestic per-minute charges and IDD charges combined.

Evidence from around the world such as the UK is that there is no case for requiring carrier pre-selection (cps) on mobile networks. There is plenty of competition on the price of mobile originated calls. This is evidenced by gradual price convergence and price falls after operators begin to experience cost reductions and scale economies.

Price competition for mobiles will affect both local/domestic and IDD calls when operators begin to realise cost savings.

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10. [Mobile Licensees other than C&W] Provide a best estimate of the proportionate breakdown, for the most recent period(s) for which data is available (specifying the period(s) used), of your company's Cayman-originated IDD traffic (measured in minutes) into the following components:

**originated from residence customer mobile accesses⁵; and
originated from business customer mobile accesses.**

[Redacted text and figures]

Redacted

13. [Fixed-line Licensees other than C&W] Provide your company's best estimate of the proportions of each of Cayman residence and business customers that will be addressable using each of self-provisioned wireline access facilities and self-provisioned fixed wireless access facilities by year-end of each of 2004, 2005, 2006, 2007 and 2008.

[Redacted text and figures]

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14. [Fixed-line Licensees other than C&W] Identify the services that your company plans to offer to each of the residence and business markets and, for each service, indicate the dates at which it expects to commence offering the service and whether the company expects to offer the service i) bundled with other services (specifying the other services), ii) on a non-bundled basis to customers purchasing other services from your company (specifying the other services) and iii) on a stand-alone basis to customers not purchasing other services from your company. Provide an explanation for the company's strategy regarding the bundled, non-bundled or stand-alone provision of the various services.

[Redacted text]

Redacted

15. [All Mobile Licensees] Detail any plans, including those elements related to the timing of service introduction, possible bundling, pricing and features provided, that your company may have for purposes of marketing mobile wireless services specifically as a replacement for fixed-line local exchange service.

[Redacted text]

Redacted

19. Attached is correspondence from TeleCayman dated 10 August 2004 proposing that, as a first phase of Indirect Access, customers using public payphones in the Cayman Islands have a choice of and access to any licensed provider for long distance call completion.

[All Respondents except C&W] Provide your company's views on the merits of TeleCayman's proposal. If the Authority adopted TeleCayman's proposal as phase one of implementing indirect access, provide the estimated implementation costs assuming access method ii) as specified in the preamble to question 1) above for public payphones only, and the benefits of such implementation.

Digicel is not cognisant of the cost of implementing this proposal. We do not know whether it is in the mind of the Authority to encourage competition in the provision of payphones but we are as certain as we can be that there will be no such competition if IA is allowed as described. However, there might be no such competition in any case. The only way to arrive at some form of judgement about whether alternative payphone provision could be viable would be to carry out a full business assessment. Naturally that would require considerable resources and we have no plans currently to carry out such an exercise.

Whether Telecayman's proposal is in the interests of CI depends on whether the introduction of IA in the manner described fits with the strategic plan of the CI which we believe is focused on alternative infrastructure provision. We think that the Authority would need to carry out the following tasks, and in the order indicated:

- i/ obtain detailed relevant information about C&W's network and C&W's costs (Digicel clearly does not have this information);
- ii/ given existing margins in payphone provision, and access to suitable sites, is there a case for competitive provision of payphones?
- iii/ even if there is a case for competitive provision of payphones, would the CI want to permit it?
- iv/ establish whether there is a separate market for the provision of international calls from payphones.

Yours sincerely,

"Signed"

JD Buckley
CEO Digicel Cayman Ltd