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Information & Communications Technology Authority

ICTA/80/105-07

16 August 2004

Mr. Rudy Ebanks, Cable & Wireless (Cayman Islands) Ltd.
Mr. J.D. Buckley, Digicel Cayman Ltd.
Mr. Tom Mix, TeleCayman Ltd.
Mr. Kevin Mahler, WestTel Ltd.
Mr. Raul Nicholson-Coe, Wireless Ventures (Cayman Islands) Ltd.

Dear Sirs,

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

Please find attached interrogatories with regards to the above referenced matter. The following is a list of interrogatories to which you are requested to respond:

Respondent	Applicable Interrogatories
Cable & Wireless	All interrogatories except 10, 13, 14, 19A
Digicel	1, 2A-2C, 3D, 4, 5, 6A-6E, 6G, 8, 10, 13, 14, 15, 19A
TeleCayman	1, 2A-2C, 3D, 4, 5, 6A-6E, 6G, 13, 14, 19A
WestTel	1, 2A-2C, 3D, 4, 5, 6A-6E, 6G, 13, 14, 19A
Wireless Ventures	1, 2A-2C, 3D, 4, 5, 6A-6E, 6G, 8, 10, 15, 19A

When filing your responses, kindly repeat the interrogatory in the response.

Respondents are requested to file responses to interrogatory 3 within **14 days** of the date of this letter and to the remainder of the applicable interrogatories within **60 days** of the date of this letter. At the time of filing your responses with the Authority, you are requested to copy your responses on the other respondents and on the parties listed at the bottom of this letter.

Yours sincerely,

"Signed"

Elaine Leung
Head of Economics & Regulation
Attachment

cc. Blue Bison, Blue Sky, E-Technologies, Foster Cayman, Infinity Broadband, West Indian Electronic Technologies

Indirect Access Interrogatories

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”).
 - B) Identify and describe all current regulatory or tariff barriers to the use of access methods ii) and iii).
 - C) Provide your company’s views, with justification, as to the relative disadvantages/costs and benefits of the following scenarios for mandated IA:
 - I) access method ii) is implemented alone;
 - II) access method iii) is implemented alone;

¹ Feature Group D (“FGD”) is described as “[t]he class of service associated with equal access arrangements. All facilities based IXC’s (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.”

Indirect Access Interrogatories

- III) access method iii) is implemented alone and mandated only for DALs provided by C&W;
- IV) access methods ii) and iii) are implemented together;
- V) access methods ii) and iii) are implemented together, with iii) being mandated only for DALs provided by C&W;
- VI) access method i) is mandated for C&W fixed switched local exchange accesses only;³
- VII) access method i) is mandated for fixed switched local exchange accesses provided by any licensee;
- VIII) access method i) is mandated for all (i.e., fixed and mobile) providers of switched local exchange accesses;
- IX) scenarios V and VI combined;
- X) scenarios IV and VII combined; and
- XI) scenarios V and VII combined.

The response should take into account, among other things, the following:

- the impact on the incentives and opportunity for voice over Internet protocol ("VOIP") rollout by new entrants (in their responses, respondents should describe the manner in which they assume VOIP will be provided by new entrants; whether such service would utilise numbers from the North American Numbering Plan; and whether subscribers to VOIP would be allowed to make or receive international calls originating or terminating from the public switched telephone network ("PSTN");
- evidence from other jurisdictions;
- the magnitude of and any impacts on barriers to and incentives for entry into the local/domestic market(s);
- barriers to entry in the IDD market;
- the rate of adoption and growth in use of mobile wireless services;
- the degree of substitutability between fixed access and mobile wireless services;
- the welfare benefits of increased IDD calling at lower rates;
- non-price benefits of increased customer choice;
- the macro-economic benefits of improving the competitiveness of businesses locating in the Caymans; and
- the rate at which prices paid for IDD originated from fixed accesses and the quality of IDD service provided become subject to significant and effective market forces in each of the following markets or market segments:
 - residence customers located in multiple-dwelling-units ("MDUs");
 - residence customers not located in MDUs; and
 - business customers.

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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- 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:
- provide a quantitative estimate;
 - indicate the time period(s) to which the estimate pertains; and
 - provide a detailed description of all methodologies, assumptions, models, data sources and other inputs used to arrive at the estimate.
- 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.
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.
- A) **[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.
- B) **[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:
- i) residence MDU fixed-line access;
 - ii) residence non-MDU fixed-line access;
 - iii) business fixed-line access; and
 - iv) IDD in the presence of mandated IA.
- 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

Indirect Access Interrogatories

which opportunities for such entry will be compromised under each of the following scenarios:

- I) no IA of any form is mandated;
 - II) access methods ii) and iii), as specified in the preamble to question 1) above, are mandated but equal access is not mandated.
- D) **[C&W only]** Provide C&W's best estimate, based on most recent information available, of the proportion of its total residence fixed-line accesses that are associated with residence customers located in MDUs. Indicate the time period(s) to which the estimate pertains and describe all methodologies, assumptions, models, data sources and other inputs used to arrive at the estimate.
3. C&W's draft retail tariffs contain a number of restrictions on use which prevent a subscriber from accessing "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." For example, in C&W's Draft General Tariff, Item 600 (General), at page 6.2, it is indicated that:

The Customer shall not allow the Internet Service to be used, modified or adapted to transmit voice Services on the PSTN. The Customer shall not connect to the PSTN at either the local or distant end.

In Item 603 (Asymmetric Digital Subscriber Line), at page 6.16, it is indicated that "transmission of Voice over IP is not permitted from any ADSL Internet Access connection."

Similarly, in Item 502 (Domestic Private Leased Circuits), at pages 5.8 and 5.9, the customer is required to undertake not to, among other things, use or "allow the DPLCs to connect voice conversations to the fixed public telecommunications system, mobile public telecommunications system or the Internet."

See also Items 503 (Integrated Services Digital Network), page 5.11; Item 601 (Dialup Internet Access), page 6.8; and Item 602 (ISDN Internet Access), page 6.11. There are similar restrictions in a new service filing that C&W has filed with the Authority on a confidential basis.

Such restraints are also present in certain wholesale arrangements. In the Service Schedule applying to provision of DPLCs for resale, the licensee-customer and the end-customer are not permitted to use or allow anyone else to use the service:

- to resell part or all of any portion of the capacity provided by the service (paragraph 2.3.3); or
- to connect to the Public Switched Telephone Network at either the local or distant end (paragraph 2.3.7).

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The service schedule pertaining to ADSL resale service requires, at paragraph 5.5, the customer to undertake that "it shall not use or cause the ADSL Resale Service to be used for the conveyance of any form of Voice Service."⁴

- A) **[C&W only]** Provide a list of all countries of which C&W is aware which prevent the use of incumbent-provided Internet accesses for purposes of voice communications on the PSTN.
 - B) **[C&W only]** Provide the rationale for the restrictions on use noted above and any other similar restrictions, set out in C&W's retail tariffs and wholesale tariffs/agreements/arrangements.
 - C) **[C&W only]** Describe in detail all methods used by C&W to investigate potential violations of and enforce the restrictions referred to in part B).
 - D) **[All Respondents]** Provide your company's views, with justification, as to whether restrictions of this nature are:
 - i) inconsistent with the requirement, under the ICTA Law (2004 Revision), that the Authority "promote competition in the provision of ICT services and ICT networks where it is reasonable or necessary to do so" (subsection 9(3)(a)) and "promote and maintain an efficient, economic and harmonised utilisation of ICT infrastructure" (subsection 9(3)(h));
 - ii) represent either an abuse of dominant position or an anti-competitive practice, contrary to the provisions of the ICTA Law (2004 Revision) and C&W's Licence, by, for example, "limiting production, markets or technical development to the prejudice of consumers" or "imposing ... unfair trading conditions." (Condition 15.2 of C&W's Licence).
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

⁴ C&W's draft retail tariffs can be found at: <http://www.cwinternet.ky/internet/products/retail-tariffs/index.php>. C&W's carrier services can be found at: <http://www.cwinternet.ky/internet/products/carrier-services/>.

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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.
 - 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.
 - 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.
 - 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.
 - 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.
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

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Authority determines that mandated availability by at least certain access providers is required.

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.

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- 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.
- 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.
- 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.
- 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.
- 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.
 - 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.

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- 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.
- F) **[C&W only]** Provide the evidence that C&W relied upon in making the following statements in paragraph 9 of its 12 December 2003 comments, along with any analyses which demonstrates the consistency of the evidence with C&W's conclusions:

...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 liberalisation 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.
- 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;
 - ii) the mobile and fixed-line penetration rates for any one year in the 1987-1990 time frame;
 - iii) whether fixed-line local exchange service has traditionally been priced on a usage-sensitive basis;
 - iv) whether fixed-line local exchange service is currently priced on a usage-sensitive basis;
 - 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));
 - 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));

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- vii) the date on which mobile competitors began commercial operations, if applicable;
 - viii) the date on which fixed-line local exchange access competitors began commercial operations, if applicable;
 - 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;
 - 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
 - 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.
- H) **[C&W only]** Provide C&W's best estimate of a) the current proportion of Cayman fixed-line residence customers that also subscribe to its residence mobile wireless service plans, and b) the proportion of Cayman households currently subscribing only to its mobile services (i.e., who do not also subscribe to fixed-line access). Provide a complete description of the data sources and estimation methods relied upon and indicate the time periods to which the data sources and resulting estimates pertain.
- I) **[C&W only]** Provide a comparison, for residence customers, of current long distance rates for calls originated from fixed-accesses with those for calls originated from mobile accesses for each of the following jurisdictions:
- the U.S.;
 - the U.K.;
 - each country served by C&W other than the Caymans and the U.K..
- Provide, for each country, information comparable to that requested in G)i), v) and vi) above and all supporting and source documentation, assumptions and calculations necessary to produce the rate comparisons.
7. **[C&W only]** Provide C&W's views, with justification, as to whether each of access methods ii) and iii), as specified in the preamble to question 1) above, would, if provided by C&W to other Licensees, fall under the pricing principles set out at paragraph 64(b) of Part 6 of Schedule 4 to the Liberalisation Agreement.
8. **[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,

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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.

9. **[C&W only]** Provide, for each of Grand Cayman and the Sister Islands, C&W's best estimate of the proportionate breakdown, for the most recent 12 month period for which data is available (specifying the 12 month period used), of C&W's Cayman-originated IDD traffic (measured in minutes) into the following components:
 - i) originated from fixed-line residence MDU accesses;
 - ii) originated from fixed-line residence non-MDU accesses;
 - iii) originated from fixed-line business accesses;
 - iv) originated from residence customer mobile accesses⁵; and
 - v) originated from business customer mobile accesses.

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:
 - i) originated from residence customer mobile accesses⁵; and
 - ii) originated from business customer mobile accesses.

11. **[C&W only]** At paragraph 10 of its comments dated 12 December 2003, C&W stated that:

At the moment, there are several new access provider--fixed and mobile--establishing infrastructure to compete with Cable and Wireless a wide variety of market segments, including international call services. Existing regulation also provide for resale and mandate infrastructure sharing arrangements to enable the operation of new service providers that do not choose to build infrastructure or build only a part of a network. The ICTA should allow this set of regulations to work their effects on the market before mandating IA. Indeed, the incremental net benefit of IA cannot be known until the current liberalization policies are implemented and results examined.

Provide a detailed description of the decision framework and criteria that C&W proposes be used in examining the results of current liberalisation policies and in determining whether, in light of those results, it is necessary to mandate IA. C&W's proposed framework should include benchmarks or criteria based on cumulative target reductions and target entrant market shares at various specified points in the future against which actual market results may be judged. The benchmarks should

⁵ For purposes of the interrogatories, business customer and residential customer mobile accesses are to be defined by the category of customer to which the plan is marketed. For instance, activity associated with C&W bMobile plans is to be categorized as residential, whereas bBiz activity is to be categorized as business.

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include i) cumulative target reductions, at various specified points in the future, in prices for IDD originated from each of residence fixed-accesses, residence mobile accesses, business fixed accesses and business mobile accesses and in prices for each of residence and business fixed-line local exchange service; and ii) target market shares, at various specified points in the future, for entrants in the following markets or market segments: mobile access, residence fixed-access (served by means other than resale of any C&W wholesale switched local exchange services), business fixed-access (served by means other than resale of any C&W wholesale switched local exchange services) and IDD originated from each of residence fixed-accesses, residence mobile accesses, business fixed accesses and business mobile accesses. C&W's response should explain in detail the rationale for each of the benchmarks and time periods chosen.

12. **[C&W only]** Provide, for all months since 1 April 2004 for which data is available combined, for IDD originated from each of residence fixed accesses, residence mobile accesses, business fixed accesses and business mobile accesses, the following, as applicable:
 - the average price per minute using actual traffic patterns;
 - the average price per minute arrived at by applying prices for mobile-originated IDD to the distribution of traffic (time of day, day of week, destination country, etc.) observed for the comparable (i.e., residence or business) fixed access-originated IDD; and
 - the average price per minute arrived at by applying prices for fixed access-originated IDD to the distribution of traffic (time of day, day of week, destination country, etc.) observed for the comparable (i.e., residence or business) mobile-originated IDD, reflecting the overall average discount represented by the Talk Away discount.
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.
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.

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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.

16. **[C&W only]** At paragraph 33 of its comments dated 12 December 2003, C&W stated:

While Cable & Wireless appreciates that the ICTA has given some recognition to the need to conduct a cost benefit analysis, the issues need to be more fully explored and costs and benefits quantified for the ICTA to fulfil its obligations under the Liberalisation Agreement and accurately assess whether introduction of indirect access would be appropriate to Cayman.

A) Assume that the Authority determines that carrier preselection and call-by-call selection must be implemented by all providers of fixed-access switched local exchange services, effective 1 January 2006. Provide C&W's best estimate of the costs that it would incur in complying with such a mandate, for each of the following broad cost categories:

- i) one-time general system provisioning costs (future-worth to 1 January 2006 using a discount rate of, for example, 13.5%) caused by the modifications to network and operating systems necessary to enable C&W to offer carrier preselection and call-by-call selection (i.e., equal access or Feature Group D);
- ii) any ongoing costs caused by the need to maintain the capability referred to in i) above, expressed both in annual cash flow terms for each of the years 2006-2010 and in present worth terms as at 1 January 2006;
- iii) the one-time costs caused by enabling carrier preselection and call-by-call selection for an individual IDD licensee, including the setting up of commercial arrangements for the electronic transfer of customer orders; and
- iv) costs caused by implementing the end-customer's carrier preselection for any given access line.

B) Identify and describe in detail all cost components/activities included in each cost estimate provided in response to A)i) to A)iv) above. Provide, for each cost inclusion, the rationale for C&W's view that the cost component/activity is caused by the requirement to offer or provide mandated carrier preselection and call-by-call selection.

C) Provide a breakdown of each of the cost estimates provided in response to A)i) to A)iv) above into amounts associated with each of the cost inclusions identified in response to B) above.

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- D) Assuming that the Authority determines that carrier preselection and call-by-call selection must be implemented both by providers of fixed-access switched local exchange services and mobile wireless services, effective 1 January 2006, provide information comparable to that requested in A) to C) above in respect of any additional costs associated with the extension of the IA mandate to cover mobile wireless providers.
 - E) At paragraph 34b) of its comments dated 12 December 2003, C&W indicated that one of its internal implementation costs would be "establishing usage monitoring facilities/processes & procedures in order to safeguard revenue." Provide a detailed description of what is contemplated by this cost element.
 - F) At paragraph 34b) of its comments dated 12 December 2003, C&W indicated that one of its internal implementation costs would be "creating and maintaining a process for fraudulent or suspicious calls handling/investigation agreed between carriers."
 - i) Describe in detail the processes contemplated by C&W and the nature of the fraudulent calls they would be designed to prevent and explain why C&W considers that the requirement for such processes is caused by carrier preselection and call-by-call selection rather than entry by other fixed and mobile access providers or the use of other Licensees' calling cards.
 - ii) Describe in detail all current intercarrier processes for the handling and investigation of fraudulent or suspicious calls and explain why any such processes would be insufficient under mandated carrier preselection and call-by-call selection.
17. **[C&W only]** At paragraph 34 c) of C&W comments dated 12 December 2003, C&W listed the "(r)eprogramming of customer premises equipment" as being among those costs imposed on consumers by indirect access. Explain why indirect access would necessitate the reprogramming of customer premises equipment.
18. **[C&W only]** Item 404 of C&W's Draft General Tariff provides for 10-10-335 Service. 10-10-335 Service is described in the draft tariff as follows:
- ...a discount IDD Service that allows Residential Customers to use a special access number to call any Overseas Telephone Number and receive a 33% discount off regular IDD Rates on all Call Charges after the initial \$5.
- To access 10-10-335 Service, Customers must dial 10-10-335 followed by 1 + Telephone Number, i.e. including the numbering plan area code, or by 011 + country code + city code + local number, as the case may be.
- Item 403 of C&W's Draft General Tariff provides for 10-10-269 Service. 10-10-269 Service is described in the tariff as follows:

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... a discount IDD Service that allows Residential Customers to use a special access number to call any Cable and Wireless Telephone Number in any C&W Caribbean Island and pay a maximum of \$10 per Call.

To access 10-10-269 Service, Customers must dial 10-10-269 followed by 1 + Telephone Number, i.e. including the numbering plan area code.

- A) Explain whether 1010335 and 1010269 are Carrier Identification Codes ("CIC"). If such codes are not CIC, explain the allocation of such numbers and provide, if possible, a reference to the North American Numbering Plan Administrator's website (www.nanpa.com) supporting the company's explanation. If such codes are CIC,
- i) Identify the carriers to whom the Carrier Identification Codes associated with these services have been assigned.
 - ii) Indicate whether the carriers referred to in i) above are licensed to operate in the Caymans. If not, provide C&W's views, with justification, as to whether the carriers require a license.
 - iii) Describe in detail the nature of the relationship between C&W and each of the carriers referred to in i) above, including the nature of any corporate affiliations, affiliate or subsidiary relationships, joint ventures and/or common ownership.
 - iv) Provide a copy of all agreements between C&W and each of the carriers referred to in i) above regarding billing and collection, interconnection, revenue settlement and other inter-carrier matters.
 - v) Provide an overview of the commercial and technical arrangements embodied in the agreements referred to in iv).
- B) Indicate whether such calls from business fixed-lines are blocked. If so, describe the technical arrangements necessary to enable such blocking. If such calls from business fixed-lines are not blocked, indicate how the tariff limitation of the service to residence customers is implemented and enforced given that, in neither case, is any form of application required.
- C) The 10-10-269 service is limited to calls placed to telephone numbers assigned to a Cable & Wireless customer in a C&W Caribbean Island. Indicate whether calls placed to telephone numbers assigned to a Cable & Wireless mobile customer in a C&W Caribbean Island are eligible.
- D) Indicate whether 10-10-269 calls placed to locations or numbers other than telephone numbers assigned to a Cable & Wireless customer in a C&W Caribbean Island are blocked. If not, indicate how the tariff limitation of the service to calls placed to telephone numbers assigned to a Cable & Wireless customer in a C&W Caribbean Island is implemented and enforced.
- E) Confirm that the availability of these 10-10 services to C&W fixed-line customers demonstrates that Feature Group D access capability has been implemented in switches serving the Cayman Islands.

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If C&W has not implemented Feature Group D access capability in switches serving the Cayman Islands: i) explain in detail the technical and access arrangements necessary to offer these services, ii) provide C&W's views, with justification, as to whether these technical and access arrangements and the use of the 101XXXX dialling plan comply with the requirements of the North American Numbering Plan, iii) indicate whether these arrangements are made available by C&W to other Licensees or providers upon request and, if not, why not, and iv) provide C&W's views, with justification, as to whether any failure to make such arrangements available to other Licensees or providers would constitute an anti-competitive practice, an abuse of dominant position or be otherwise unjustly discriminatory.

If C&W has implemented Feature Group D access capability in switches serving the Cayman Islands:

- i) provide information comparable to that requested in questions 16A) (if applicable), 16B), 16C) and 16D) for all cost elements that have already been incurred.
- ii) indicate the dates on which:
 - the decision to implement Feature Group D was taken by C&W;
 - work implementing Feature Group D network capability commenced; and
 - work implementing Feature Group D network capability was completed.
- iii) identify and explain the reasons for C&W's decision to implement Feature Group D capability in switches serving the Cayman Islands;
- iv) provide C&W's views, with justification, as to whether the costs of implementing Feature Group D capability in the network and developing any additional operating processes necessary to offer and administer the call-by-call selection component of Feature Group D were caused by or incremental to C&W's internal decisions to implement Feature Group D and its 10-10 services and thus would not be causal to any future Authority decision to mandate equal access;
- v) indicate whether the 101XXXX dialling arrangements for calls originated by C&W fixed-line customers are made available by C&W to other Licensees or providers upon request and, if not, why not; and
- vi) provide C&W's views, with justification, as to whether any failure to make such arrangements available to other Licensees or providers would constitute an anti-competitive practice, an abuse of dominant position or be otherwise unjustly discriminatory.

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

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Islands have a choice of and access to any licensed provider for long distance call completion.

- A) **[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.
- b) **[C&W only]** Refer to paragraph 23 of C&W comments dated 12 December 2003, where C&W states that "(f)or certain services, particularly payphones, technical and operational considerations may make indirect access inappropriate" and goes on to list these considerations. Assuming the Authority mandated access method ii) as specified in the preamble to question 1) above for public payphones only,
- i) describe in detail the major modifications that C&W believes would be required to the two separate C&W platforms (describe).
 - ii) describe in detail, with justification, the additional processes that C&W believes would need to be developed to track and refund payments made at coin operated payphones, as a result of the mandate.
 - iii) describe and quantify the administrative burden and additional costs referred to by the company in the above-noted reference.

For each of i) to iii) above, provide a detailed description of methodologies, assumptions, models, data sources and other inputs used to arrive at the cost estimates.