



**Information & Communications Technology Authority**

**Public Consultation  
on  
Indirect Access**

**(Ref: CD (2003) 7)**

**Launch Date: 11 Nov 03**

**Closing Date: 12 Dec 03**

## **1.0 INTRODUCTION AND OBJECTIVES**

Effective competition in the supply of information and communications technology ("ICT") services confers benefits to customers as well as to network operators and service providers. For subscribers, such benefits usually take the form of choice among suppliers, lower prices, and improved service quality and reliability. Competition may improve the carriers' and service providers' incentives to make efficiency improvements and to exploit opportunities for growth and innovation, thereby leading to a more efficient and effective ICT sector.

A well-structured regulatory framework for indirect access can further the development of effective competition for international ICT services in the Cayman Islands' liberalised ICT market. Indirect access allows international ICT service providers to sell outgoing international services in competition with the incumbent. Indirect access will effectively untie the provision of international services from the provision of access and local services and, as a result, facilitate competition for the former. A more competitive international ICT market will lead to more choice, lower prices, and improved service quality. These outcomes are consistent with the objectives in the Information and Communications Technology Authority Law, 2002 ("ICTA Law").

In this Public Consultation Document, the Information and Communications Technology Authority ("Authority") seeks comments on a number of regulatory issues associated with indirect access; the costs and benefits of indirect access; and a proposed framework for the provision of indirect access in the Cayman Islands.

## **2.0 ISSUE**

Indirect access is an arrangement between the end customer's international service provider and the provider with local exchange facilities to the end customer's premises. Under this arrangement, the local facilities provider originates and transports the international services from the end customer's premise to an agreed point of interconnection between itself and the customer's selected international service provider. The international service provider makes arrangements to transport and terminate the call on international network facilities.

Indirect access allows licensees other than the end customer's access and local services provider, and who have international network arrangements, to offer international services (including carrier pre-subscription, call-by-call selection, and voice over IP international services) to the end customer. Indirect access may enable the furtherance of the Authority's objectives in its legislation and, accordingly, the Authority reserves the right to mandate such a regime following public consultation.

### 3.0 BACKGROUND

The liberalisation of the ICT sector in the Cayman Islands commenced on 10 July 2003 with the signing of the agreement ("Liberalisation Agreement") by Cable & Wireless (Cayman Islands) Ltd. ("Cable & Wireless"), the Cayman Islands Government and the Authority.

To date, several ICT network and ICT services licences have been issued for the operation of ICT networks and provision of ICT services.

The process of liberalisation has as a primary goal the establishment of an effectively competitive ICT sector in the Cayman Islands. Underpinning the liberalisation process is the ICTA Law. A key objective of the ICTA Law is listed below:

- "9. (3) Without prejudice to the generality of subsections (1) and (2), the principal functions of the Authority are:
- (a) to promote competition in the provision of ICT Services and ICT Networks where it is reasonable or necessary to do so; ..."

Various provisions of the Liberalisation Agreement seek to facilitate the development of a competitive marketplace in the Cayman Islands in an economic manner and on a timely basis. This includes provisions related to indirect access.

Schedule 1 to the Liberalisation Agreement provides as follows:

"Indirect Access' shall mean 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;

25. Indirect Access shall be mandated to be provided by any Licensee if the Authority has first determined after consultation with interested parties that the benefits to consumers from such mandate would outweigh the cost to all parties, and that the mandate will not impose an unfair burden on any Licensee."

Licensees other than Cable & Wireless that offer international ICT services may only do so prior to 1 April 2004 using Cable & Wireless' international network, pursuant to Section 2.1 of Schedule 6 to the Liberalisation Agreement which states that:

- "2.1 Licences may only be issued in accordance with the table set out below:

<u>ICT Service</u>	<u>Date</u>
...	
International Services	1 April 2004

For the avoidance of doubt, with the exception of that Licence issued to C&W, no Licence shall be issued after the Effective Date that has the effect of allowing any Licensee other than C&W to Commercially Operate:

...

(c) An International Network prior to 1 April 2004.”

Beginning 1 April 2004, a new licensee offering international ICT services has the option of using its own international network or making arrangements with a provider of international network facilities other than Cable & Wireless as an alternative to using Cable & Wireless’ international facilities.

#### **4.0 CONSULTATION QUESTIONS**

Based on experience in other jurisdictions, the Authority is of the view that indirect access could facilitate the development of a competitive marketplace in an economic and timely manner.

This Public Consultation Document addresses the following issues:

- licensee obligations to provide indirect access;
- licensee eligibility to avail itself of indirect access;
- costs and benefits of indirect access and any unfair burden;
- proposed indirect access regime;
- consumer protection;
- numbering issues under indirect access;
- cost recovery for indirect access; and
- other issues.

Indirect access, as commonly understood, involves the purchase of call origination services by licensees who carry the remainder of the international call on an international network. With regard to the latter, the indirect access operator would purchase call termination services to deliver the international call.

##### ***Issue 1. Licensee Obligations to Provide Indirect Access***

Cable & Wireless has developed a ubiquitous network throughout the Cayman Islands. Based on experience in other jurisdictions with liberalised telecommunications markets, the incumbent carrier or carriers have generally retained market power with respect to fixed line interconnection and fixed line retail services.

In this regard, the Authority is inclined to require Cable & Wireless to offer indirect access. Indirect access would allow Cable & Wireless’ customers to avail

themselves of switched and non-switched publicly available international ICT services for voice provided by interconnected licensed providers, regardless of where customers originate their calls on the fixed line network in the Cayman Islands. The Authority has not precluded, at this time, the possibility that it may be appropriate to require new licensed ICT service providers that have fixed line access network arrangements in the Cayman Islands to offer indirect access and seeks comments on this question as part of its public consultation process.

In order to maximise the benefits from indirect access, customers should ideally be able to access international services of interconnected licensees of public ICT services from any type of fixed access line, including the following:

- fixed residential (direct exchange) line;
- fixed business (direct exchange) line;
- multi-lines such as PBX, including hotels;
- ISDN line;
- ADSL;
- lines that are part of a VPN; and
- all payphones.

**Question 1.1** Should indirect access be mandated only for Cable & Wireless at this time? Should it be mandated for all licensed ICT service providers that have fixed line access network arrangements? If parties believe that indirect access should be mandated only for Cable & Wireless at this time, the Authority would welcome comments on the criteria that might be used to review and to potentially extend this obligation to other licensees in future.

**Question 1.2.** Assuming a decision in favour of indirect access, what proposed limitations, if any, should apply to the provision of indirect access including limiting implementation of indirect access to certain types of access lines and/or limiting implementation of indirect access before or after 1 April 2004?

The legislative provisions do not preclude the Authority from imposing indirect access obligations on mobile operators. In other jurisdictions, mobile operators have argued that indirect access is not necessary as there is usually intense competition among mobile carriers for retail subscribers and the cost of switching between mobile service licensees is less significant than on the fixed service licensees. Mobile operators have also argued against the imposition of an obligation to provide indirect access on the basis that substantial investment is required to roll out mobile networks and the incentive to invest in such networks would be significantly lessened by a requirement to provide indirect access.

Although competition in the mobile market has tended to develop quickly in other jurisdictions, including in numerous Caribbean countries, the market in the

Cayman Islands will only be opening on 1 February 2004 and, as a consequence, it may be difficult to determine whether competition will develop rapidly in the mobile market. There is also a growing trend throughout EU countries to require mobile operators to provide certain types of indirect access.

**Question 1.3.** Should indirect access be mandated for mobile carriers at this time, in addition to the licensees addressed in Question 1.1?

**Question 1.4.** If indirect access should not be mandated for mobile carriers at this time, what is the contemplated time scale for investigating the potential extension of mandated indirect access on mobile carriers? What factors should be taken into account in such an investigation?

Parties' comments should be supported by detailed well-reasoned arguments, including, but not limited to the following: specific technical constraints that could not be easily overcome; specific legal issues that would need to be addressed prior to the implementation of indirect access; and any other significant issues. Parties should discuss the impact of the proposals on their business, customers and competitors.

## ***Issue 2. Licensee Eligibility to Avail Itself of Indirect Access***

In other jurisdictions where a form of indirect access exists, operator eligibility is usually dependent on the licensing scheme. Some countries, however, also require that an operator has significant network infrastructure deployment before being considered for a form of indirect access.

Assuming a decision in favour of indirect access, the Authority proposes that indirect access be made available to any licensee satisfying the four criteria listed below:

- holds a Fixed Telephony and/or Internet Telephony licence and provides publicly available international ICT services to retail subscribers;
- has interconnection arrangements with an access network operator that is obligated to provide indirect access (i.e., Cable & Wireless and any other licensee that may be required to provide indirect access per Questions 1.1 and 1.3);
- is able to deliver calls to all international destinations; and
- has relevant numbering codes from the Authority.

The above proposed criteria centre on the licensee's ability to provide public international ICT services to all parts of the Cayman Islands using indirect access.

The proposed requirement to deliver calls to all international destinations is aimed at avoiding a situation where some of a customer's calls are not accepted by their indirect access operator possibly because terms to deliver calls to certain overseas destinations are commercially unattractive. In situations where the customer has pre-selected an international ICT service provider other than Cable & Wireless, this could potentially leave the customer unable to use Cable & Wireless or their international ICT service provider for calls to certain international destinations.

In addition to the above proposed criteria, the Authority may require that a Code of Practice for indirect access be established (see Section 5), and that providers of international ICT services using indirect access accept and comply with the Code of Practice. The purpose of a Code of Practice is to ensure that no unethical business practices occur in the marketing and delivery of services to the public. Breaches of such a Code, if adopted, could lead to the suspension of indirect access.

**Question 2.1.** Assuming a decision in favour of indirect access, are the proposed qualification criteria for indirect access operators appropriate? Should there be tighter restrictions on which licensees can avail themselves of indirect access?

In their comments, parties are encouraged to discuss the merits of the proposed qualification criteria in terms of impact on their business, customers, competitors and the extent to which the Authority would be required to monitor and possibly enforce indirect access operators' activities.

### ***Issue 3. Costs and Benefits and any Unfair Burden of Indirect Access***

Section 25 of Schedule 1 to the Liberalisation Agreement requires the Authority to determine that the benefits from mandated indirect access would outweigh the costs to all parties, and that the mandate would not impose an unfair burden on any licensee.

In considering the question of whether indirect access is to be mandated and the form of indirect access that is appropriate for the Cayman Islands, the Authority is mindful of its responsibility under the ICTA Law to promote competition among ICT network operators and service providers. Accordingly, the regime must be simple to implement, understand and enforce. A regime that is unduly complex and lacks clarity is unattractive to customers and carriers alike, and is unlikely to serve the purposes for which it is established.

The most obvious benefits that are likely to arise from mandated indirect access include:

- increased choices for fixed line customers;
- innovation in the supply of retail services; and
- a reduction in prices of international ICT services towards economic cost, thereby reducing economic “deadweight loss” and stimulating demand.

The implementation of indirect access may require modifications to operators’ processes and, in some instances, development of new support systems. Experience in other countries shows that modifications and/or additions to the following inter-operator processes are usually required:

- order handling and provisioning;
- complaint and fault handling;
- inter-operator billing; and
- provision of management information statistics.

Order handling and provisioning encompasses the identification of invalid orders as well as the process for the exchange of orders allowing for the set-up, change and removal of services on a subscriber line. The handling of customer complaints and faults involves changing existing processes to recognise an indirect access subscriber and to respond to faults reported by an indirect access subscriber. Inter-operator billing involves changing existing processes to allow for the addition, changing and removal of indirect access on subscribers’ lines. Management information statistics involves the provision of statistics to measure inter-company performance and to demonstrate the achievement of agreed upon service levels.

**Question 3.1.** Is there agreement with the above costs and benefits of mandating indirect access? Are there other costs and benefits the Authority should take into account? How should the Authority assess the notion of unfair burden?

Parties’ comments should be supported by detailed well-reasoned arguments.

#### ***Issue 4. Proposed Indirect Access Regime***

There are two technical alternatives for implementing indirect access: call-by-call selection and carrier pre-selection (“CPS”). A description of each alternative is set out below.

With call-by-call selection, subscribers dial a carrier access code ("CAC") before the international telephone number. Where no selection is made, Cable & Wireless or the subscriber's access and local services provider is the default international services provider.

Under CPS, subscribers pre-select a licensee for their international ICT services. Having pre-selected an international ICT services provider, the subscriber is not required to dial a CAC before dialling an international telephone number. Calls from the subscriber are routed to the pre-selected carrier until the subscriber changes the selection. In the absence of pre-selection, the customer's international calls would continue to be routed by Cable & Wireless or the subscriber's access and local services provider. Customers are able to 'override' their pre-selections for individual calls on a call-by-call basis by dialling a CAC, having made arrangements to do so with other licensees including Cable & Wireless.

In both cases, domestic calls and 911 calls would continue to be routed by Cable & Wireless and other access network operators. Existing facilities on the customer's line, such as call management services (e.g., Cable & Wireless' Magic Touch services) should not be affected by the provision of indirect access. The process of initially enabling indirect access on a customer's line must support continuity of telephone service during the switchover. There should be no noticeable degradation in service quality by the addition of indirect access (e.g., in call set-up time, noise).

The Authority is of the preliminary view that carrier pre-selection with call-by-call override capability for publicly available international voice services from any type of fixed access line would be the most appropriate for the Cayman Islands. This would provide maximum consumer choice and an equal opportunity for international service providers to compete against the incumbent and each other. It would facilitate the development of an effective competitive market for international services. Customers need not pre-select a carrier in order to make use of call-by-call selection and vice versa.

The arrangement for CPS with call-by-call override would be provided as part of the list of standard interconnection services by a licensee that is required to provide indirect access. It would also be subject to the relevant provisions of the ICTA Law and the Interconnection and Infrastructure Sharing Regulations.

Some of the essential requirements for CPS with call-by-call selection include:

- availability of trunk-side interconnection with the access network licensee;
- switch software features to identify call-by-call selection and carrier pre-selection;
- a numbering plan that allocates equivalent codes to the access network licensee and to licensees providing international services;

- provision of basic signalling services by the access network licensee including Calling Line Identification ("CLI");
- answer and disconnect supervision; and
- arrangements to permit billing and auditing between carriers and to permit multiple bills to be issued to subscribers, separately by the access network licensee and by licensees providing international services using indirect access services.

In keeping with changing industry conditions and international experience, from time to time, either on its own initiative or at the request of an interested party, the Authority proposes to undertake reviews and to make modifications to the above regime where appropriate.

**Question 4.1.** Assuming a decision in favour of indirect access, is there agreement with the proposed indirect access regime and, in particular, the proposal for the availability of both carrier pre-selection with call-by-call override capability for publicly available international voice services?

**Question 4.2.** Are there implementation issues with the proposed indirect access regime which may preclude the economic and/or timely introduction of competition in international ICT services in the Cayman Islands? Are there proposed solutions to such implementation issues?

**Question 4.3.** Are there additional service functions that would be required in order to implement CPS with call-by-call selection?

**Question 4.4.** As the industry trend is to simplify billing for customers as much as possible, is there customer demand in the Cayman Islands for a single bill option? If so, what benefits and costs would such an additional service bring and how should it be implemented?

**Question 4.5.** Are there technical, legal or other impediments which would prevent one bill to be issued either by the indirect access operator or the access and local services provider? If single billing of indirect access customers was to be implemented, would single billing by the indirect access operator or by the access and local services provider be more desirable?

Parties' comments addressing the merits and drawbacks of the proposed indirect access regime, and any appropriate modifications, would be welcome by the Authority. Parties should provide detailed supporting rationale for their proposals.

***Issue 5. Consumer Protection***

International service providers must develop adequate customer information and consumer protection procedures to assist the public to understand the choices they will have, and how the new services will work. In particular, consumers need to fully understand that CPS will be different from call-by-call selection in the automatic nature of CPS and the impact, if any, on other services they are to retain.

Experience in other countries has shown that special rules and processes are needed to ensure adequate public information on the choices available to subscribers. Additional rules and processes may also be needed in the Cayman Islands to protect consumers from the misuse of personal information and from fraudulent billing and marketing practices.

“Slamming” is a frequently cited example of the misuse of customer information. Slamming refers to the practice of switching a customer’s long distance telephone service provider without obtaining informed consent from the customer.

In Ireland, for example, as a pre-condition of service, operators are required to be signatories to a Code of Practice governing the provision of CPS services. Among other things, the rationale for a Code of Practice is to offer adequate protection to consumers and to help them in understanding the choices they have and how the services will work. The Code of Practice was developed by the Irish telecoms providers and includes, among other things, consumer protection measures covering:

- promotion of indirect access;
- presentation of retail rates;
- order handling process;
- customer contracts;
- use of customer information;
- customer billing and bill payment;
- fraud;
- bad debt; and
- customer complaint and inquiry handling.

**Question 5.1.** Assuming a decision in favour of indirect access, is a Code of Practice is required? What issues might be addressed in such a Code? Which parties should be required to adopt the Code of Practice – indirect access operators only or both indirect access operators and indirect access providers? How should such a Code be developed?

**Question 5.2.** Are consumer protection measures other than or in addition to a Code of Practice as addressed in Question 5.1 necessary to protect consumers against fraud or misuse of personal information, and, in general, to ensure consumer confidence in licensed international ICT service providers?

It would be of assistance to the Authority if parties, in their comments, identified models or approaches that have met with success in other jurisdictions, as well as any modifications that would be appropriate for the Cayman Islands. Parties' comments on the proposals should address the extent to which the Authority would need to monitor indirect access operators to ensure they adhered to consumer protection measures.

### ***Issue 6. Numbering Issues for Indirect Access***

The Authority has the mandate to develop a national numbering plan for the Cayman Islands, as well as to manage and allocate the numbering resources.

These duties include the assignment and regulation of the use of Carrier Access Codes ("CAC") and Carrier Identification Codes ("CIC"), both of which are relevant to the provision of CPS with a call-by-call facility to override the pre-selected carrier. CACs enable a customer to reach a long-distance carrier. The primary carrier of choice is reached by dialling 1+ while a secondary long-distance carrier can be reached by dialling either 101XXXX which is the Feature Group D (equal access) CIC or 950-XXXX which is the Feature Group B CIC. The XXXX CIC codes are used to dial around the pre-subscribed carrier. CICs provide routing and billing information for calls from end users via trunk-side connections to connecting carriers.

**Question 6.1.** Assuming a decision in favour of indirect access, are there any technical or other impediments preventing the timely and economic implementation of the proposed format of CAC and CIC codes?

### ***Issue 7. Cost Recovery for Indirect Access***

In general, there are three broad categories of costs relating to the provision of indirect access:

- (i) general system provisioning 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 indirect access requirements;
- (ii) licensee-specific enabling costs which are costs incurred by the access network licensee for enabling indirect access for any individual licensee, including the setting up of commercial arrangements for the electronic transfer of customer orders; and
- (iii) per line enabling costs which are mainly administrative costs of implementing indirect access for individual customer lines.

These three cost categories have been identified by other administrations. Consistent with cost recovery practices adopted by other regulatory jurisdictions, the Authority proposes that both the per line costs and the licensee-specific enabling costs be recovered from operators requesting indirect access. As licensees requesting indirect access services sign up new customers, they require work to be performed by the access network licensee in order to supply and bill that customer international services. The licensee-specific costs are incurred by the access network licensee as a result of performing work on behalf of licensees requesting indirect access services. The Authority proposes that such costs would be recovered from indirect access operators directly and not through interconnection charges. The per line and licensee-specific charges should recover only the costs of an efficient operator using an efficient technical solution.

There is a lack of international consensus about how general system provisioning costs should be apportioned. No general practice or clear trend has emerged from other regulatory jurisdictions as to how the general system provisioning costs should be recovered. In many jurisdictions, these costs are borne entirely by the access and local services operator, while in others such costs have been shared amongst all operators in a manner determined by the regulatory authority.

Certain cost apportionment methods have clear disadvantages. For example, requiring some of the general system provisioning costs to be borne up-front by first-in indirect access operators would be an incentive for certain operators to stay out the market temporarily to avoid paying any costs. Recovering general system provisioning costs in a per-minute charge is not necessarily a robust calculation depending on whether the number of minutes is a forecast or an actual number and could potentially result in over-recovery of costs.

The Authority's preliminary view is that the own general system provisioning costs should be borne by each of the licensee(s) obligated to provide indirect access per Questions 1.1 and 1.3. Only the costs of an efficient operator using an efficient technical solution should be recovered. This avoids the difficult issue

of determining a cost apportionment method that is, among other things, fair to all parties and does not result in an over-recovery of costs.

**Question 7.1.** Assuming a decision in favour of indirect access, is there agreement on the proposed cost recovery proposals? Are there any practical problems in implementing any of the proposals regarding cost recovery?

Parties are welcome to make alternative proposals, including modifications to the proposals above. Parties are encouraged to discuss the merits of the proposed cost recovery methods in terms of impact on their business, customers, competitors, and regulatory resources. Parties' comments should be supported by well-reasoned arguments and quantitative information if possible.

### ***Issue 8. Other Issues***

**Question 8.1.** Assuming a decision in favour of indirect access, is there a requirement for the establishment of an industry committee to implement indirect access?

**Question 8.2.** Are there any other issues that the Authority should take into account in its determinations on indirect access?

The ICT Authority requests written submissions from established and potential licensees, other stakeholders and the general public by 12th December 2003.

Written submissions should be forwarded to:

By post:

The Managing Director  
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P.O.Box 2502GT  
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Or by courier:

The Managing Director  
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Or by fax to:

1-345-945-8284