



Framework for Implementation of Indirect Access in Trinidad and Tobago

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Maintenance History		
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1 Introduction

1.1 Rationale

The Telecommunications Act 2001, (“the Act”), empowers the Telecommunications Authority of Trinidad and Tobago (“the Authority”) to:

1. establish conditions for an open market for telecommunications services, including conditions for fair competition, at the national and international levels (Section 3(a)); and
2. promote access to telecommunications services (Section 3 (c)(i)).

The Authority has granted concessions to persons for the provision of public national and international telecommunications services and for the operation of such networks. Section 25 (1) (b) of the Act, in recognising the importance of interconnection to the attainment of the aforementioned objectives, imposes on the Authority the obligation to require a concessionaire to provide indirect interconnection to other concessionaires of public telecommunications networks and services.

Section 25 (2) (k) of the Act mandates that dialling parity be implemented as does Clause 8 of the Telecommunications (Interconnection) Regulations, 2006 (“the Interconnection Regulations”).

Indirect Access is the term used to describe the mechanism by which an end user utilises the facilities of an international telecommunications concessionaire, to which he is not directly connected, to carry his international calls. In order to facilitate Indirect Access to the end user, there must be interconnection between the preferred international concessionaire of the end user, and the domestic concessionaire to which that end user is directly connected. Therefore, the Authority considers that the provisions of the Telecommunications (Interconnection) Regulations, 2006 are directly applicable to the implementation of Indirect Access in Trinidad and Tobago.

The Authority believes that Indirect Access, together with dialling parity, would facilitate equal access to public international telecommunications networks and services by all end-users and as such, would boost fair competition in this market.

Competition in the international voice call market will bring about greater choice and quality to users. The effects of Indirect Access for long distance and international calls in other countries, e.g. Europe and the USA include a boost in competition amongst service providers in the provision of long distance and international calls which resulted in real benefits to end users. This Framework, when implemented, would facilitate the attainment of such benefits by the people of Trinidad and Tobago.

1.2 Objectives

The objectives of this consultative document are to propose:

- 1) an efficient and effective approach for the implementation of Indirect Access in Trinidad and Tobago and
- 2) a manner in which costs for implementing Indirect Access shall be determined and recovered.

1.3 Regulatory Framework

As stated above, Section 3 of the Act outlines the objects of the Act as including *inter alia* the establishment of conditions for:

- (a) *an open market for telecommunications services, including conditions for fair competition, at the national and international levels;...*
- (c) *promoting and protecting the interests of the public by-*
 - (i) *promoting access to telecommunications services;”*

The need for the promotion of access is bolstered by Section 25(1) which stipulates that the mandatory conditions for the grant of a concession for a public telecommunications network or a public telecommunications service shall include conditions for:

- (a) direct interconnection with the public telecommunications network or public telecommunications service of another concessionaire;*
- (b) indirect interconnection with such network or service referred to in paragraph (a), through the public telecommunications networks or public telecommunications services of other concessionaires;”*

Section 25(2) (k) recognises that indirect interconnection can only be effectively implemented if complemented by dialling parity which each concessionaire must be bound to provide *to other concessionaires of public telecommunications networks and public telecommunications services in accordance with requirements prescribed by the Authority.*

Regulation 8 (Part 2) of the Telecommunications (Interconnection) Regulations, 2006 also obliges concessionaires as follows:

Whenever concessions are granted by the Authority to alternative operators to provide international voice services, a concessionaire shall-

- (a) configure its network to facilitate dialing parity; and*
- (b) programme its switches or routers to enable carrier selection or preselection where applicable, for access to international services.*

Regulation 3 (a) of the Telecommunications (Interconnection) Regulations, 2006 obliges concessionaires *“to provide direct and indirect interconnection of the networks and services of other concessionaires to its own networks and services “.*

At present, all concessionaires of public domestic telecommunications services use various international carriers to carry the international calls dialled by end users. End users have no real choice of international carrier and therefore do not have the ability to select for themselves an international carrier of choice on the basis of quality, price or service.

The Authority considers that the aforementioned legislative provisions clearly do not intend for the end user to be encumbered by multiple customer premise equipment to access the various networks of competing international carriers. In addition, interpretation of these provisions is not to be limited to domestic calls only. Rather, the Authority believes that the Act and the Interconnection Regulations impose on the Authority the obligation to put in place the appropriate regulatory framework for the implementation of Indirect Access in Trinidad and Tobago.

1.4 Scope

This document will serve as the basis for concessionaires to implement Indirect Access as directed by the Authority for the fixed and mobile market sectors in Trinidad and Tobago.

1.5 Review Cycle

As the country's telecommunications industry matures, the need will arise to revise and update this framework. As such, the "Framework for Implementation of Indirect Access in Trinidad and Tobago" will be reviewed and modified as necessary and in consultation with stakeholders and the public, as the Authority deems appropriate.

1.6 Consultation Process

The Authority sought the views and opinions of the concessionaires and stakeholders by two public consultations on 21st July, 2008 and 2nd April, 2009 respectively, on the proposals made in this document. The Authority received a number of comments and recommendations in those consultations and made appropriate revisions to the *Framework for Implementation of Indirect Access in Trinidad and Tobago*. The Decisions on Recommendations (DOR) matrices, attached as Annex 1 and Annex 2, summarise the comments and recommendations received in the first and second consultations and the decisions taken by the Authority.

Framework for Implementation of Indirect Access in Trinidad and Tobago

The Authority now publishes the final document on the *Framework for Implementation of Indirect Access in Trinidad and Tobago*.

2 Definitions

The following are definitions for terms used in this document:

Calling party	means the end user who initiates a call.
Called party	means the end user who is called.
Carrier pre-selection	means a method that offers the end user the facility to choose in advance which international telecommunications concessionaire will be used for international calling. The end user dials the called party's number only.
Carrier selection	means a method whereby the end user dials a carrier selection code prior to dialling the called party's number. The carrier selection code must be dialled for every international call or else the pre-selected public international telecommunications carrier will be used by default to complete the call.
Carrier selection code	means the numbers dialled by an end user before or after the international called party's number to select the carrier which will carry the call. The carrier selection code is made up of the carrier access code and the carrier identification code and is seven digits in length.
Concessionaire	means a person who has been granted a concession under the Act to provide a public telecommunications service or to operate a public telecommunications network.
Default concessionaire	means a concessionaire whose network is used to carry an international call if no specific choice is exercised by the end user when dialling.
Dialling parity	is the ability to access an international called party using different international telecommunications concessionaires by dialling the same number of digits to complete the call

as if using the international facilities of the end user's domestic telecommunications concessionaire.

E.164 means the recommendations of the International Telecommunications Union on the format of a telephone number.

End user means the residential or commercial user of telecommunications services.

Equal Access has the same meaning as defined in the Interconnection Regulations.

Indirect Access is the term used to describe the mechanism by which an end user utilises the facilities of an international telecommunications concessionaire, to which he is not directly connected, to carry his international calls.

Interconnection provider has the same meaning as defined in the Interconnection Regulations.

Interconnecting concessionaire has the same meaning as defined in the Interconnection Regulations

New entrant means a concessionaire who has recently established business arrangements in a country.

OECD Organisation for Economic Cooperation and Development.

3 Types of Indirect Access

There are two basic types of Indirect Access, namely Carrier Pre-selection and Carrier Selection.

- 1) Carrier Pre-selection offers the end user the facility to choose, in advance, which international telecommunications concessionaire will be used for completing all his international calls.
- 2) Carrier Selection gives the end user the option to select a different international telecommunications concessionaire on every occasion that he wishes to complete an international call. In this case, every time an international call is made, the user dials a carrier selection code before or after the international number. The carrier selection code usually consists of a carrier access code and a carrier identification code. The carrier selection code can be up to seven (7) digits in length (NANP practice). It is usual to use it as a prefix code rather than a suffix code.

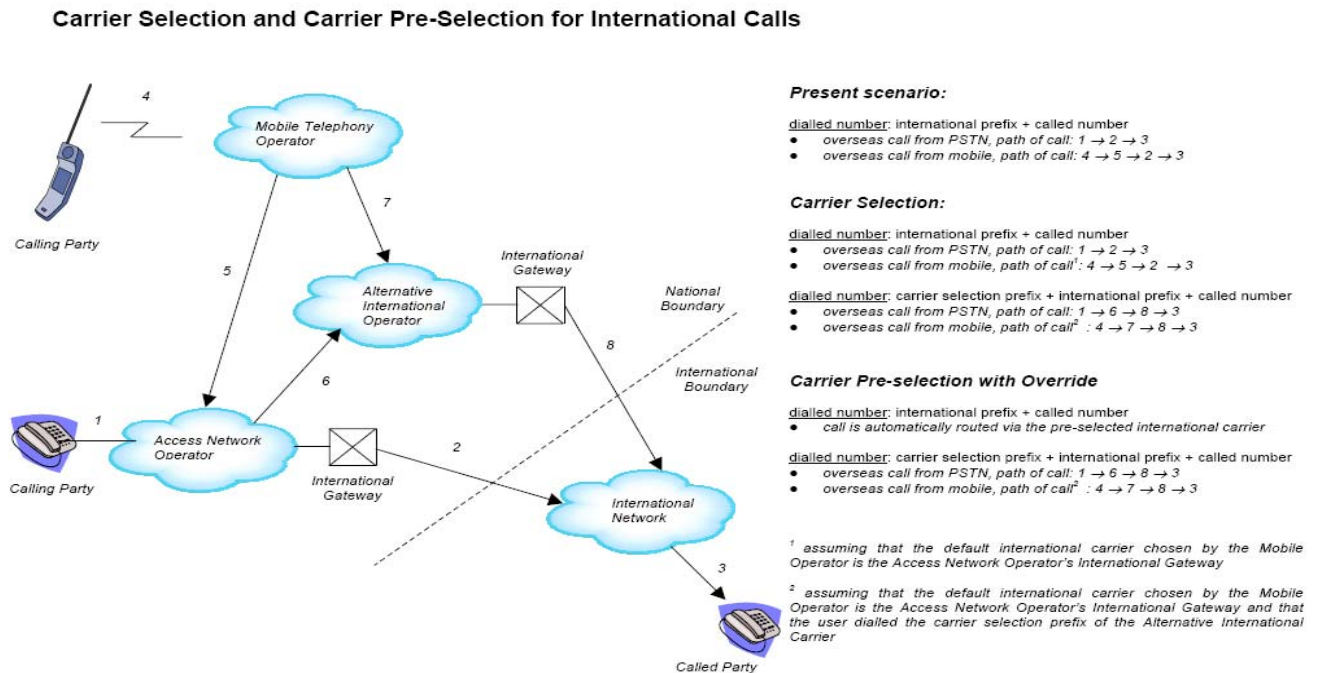
Figure 1 below is used to demonstrate a network with both fixed and mobile services and calls being made in the following manner:

- 1) Using Carrier Pre-selection
- 2) Using Carrier Selection
- 3) Using Carrier Pre-selection with override

3.1 Carrier Pre selection

International call routing for Carrier Pre-selection functions similar to the Present scenario illustrated in Figure 1, with the exception that more than one international gateway option is available and is pre-selected by the customer. With this method of Indirect Access, the end user dials the international prefix and the called party's international number. The local exchange is programmed so that anytime the international prefix is dialled; the routing of that call is predetermined and sent to an international concessionaire pre-selected by the caller.

Figure 1



Source: www.mca.org.mt/filesystem/pushfile.asp?id=155&source=3

The advantages of the Carrier Pre-selection option are as follows:

- It is technology neutral and in principle, can be implemented in all networks;
- It is not costly to implement and can be implemented in a short period of time;
- and
- It affords dialling parity, equal access and fair competition.

The disadvantages of Carrier Pre-selection are as follows:

- The end user must make separate commercial arrangements with the pre-selected international telecommunications concessionaire;
- The end user would be unable to access other international telecommunications concessionaires if a concessionaire is pre-selected and, therefore, cannot benefit from special rates offered by other competing concessionaires; and

- The end user would be unable to access alternative international telecommunications networks should their pre-selected concessionaire's facilities be out of service for any reason.

The determining factor as to which international telecommunications concessionaire's service is chosen will likely be the cost and quality of the call to the destination country at the time of day as indicated by the international telecommunications concessionaires in their rate tables.

3.2 Carrier Selection

The following describes the process for an end user to make an international call using Carrier Selection (Figure 1 refers):

1. The fixed line or mobile end user decides to use an alternative international telecommunications concessionaire to the pre-selected carrier, to make an international call.
2. In making this call, the end user dials a carrier selection code in front of the international called party's number to select the desired international telecommunications concessionaire whose network would be used to complete that particular call.
3. The domestic telecommunications concessionaire then uses the dialled carrier selection code to route the call to the desired international telecommunications concessionaire for that particular call.

The advantages of this option are as follows:

- New entrants would not be at a disadvantage provided concessionaires of public fixed line and mobile networks allow their customers to access an international gateway or otherwise make international calls only after dialling the same number of prefix digits as the customers of new entrants must dial.
- The experiences of other countries seem to suggest that the cost of implementation is not prohibitive.

- The end user has control at all times over which international telecommunications concessionaire is used to complete his international calls.
- The end user is able to benefit from special rates offered by alternative international telecommunications concessionaires.
- The end user has a greater chance of successfully completing international calls in the event of natural disasters as not all concessionaires of international telecommunications services may be out of service at the same time. This assumes that the public domestic networks are operational.

The disadvantages of this option are as follows:

- It can favour the pre-selected international telecommunications concessionaires in that international calls dialled without the carrier selection code will be completed using the pre-selected international facilities; and
- Customers have to dial additional digits for every international call which may total as much as seventeen (17) digits (the carrier selection code in addition to the international number). While it is recognized that dialling these additional digits can become tedious and cumbersome for end users, in particular for the elderly, automatic diallers /speed calling features can be used to assist end users in dialling the long string of digits.

3.3 Carrier Pre-selection with override

This form of Indirect Access allows the end user greater flexibility in choosing an international telecommunications concessionaire to complete his international calls (Figure 1 refers). As stated earlier, carrier pre-selection pre-determines which international telecommunications concessionaire is used by an end user in making international calls. A service feature which allows an end user who has carrier pre-selection to bypass the pre-subscription service feature, and make international calls using an alternative international telecommunications concessionaire, on a call by call basis, is called 'carrier pre-selection with override'. This feature provides the end user with an even greater flexibility of choice of international telecommunications

concessionaire. Additionally, it fosters competition among the international telecommunications concessionaires as the pre-selected carrier would wish to minimize the number of international calls the end user will send over a competitor's international facilities.

Carrier Pre-selection with override can be very useful to an end user in the following scenarios:

- a) In the event that there is a failure of the facilities of the pre-selected public international telecommunications network or service provided that the domestic telecommunications concessionaire's service or network is available ;
- b) If the pre-selected international telecommunications concessionaire or operator goes out of business;
- c) If a lower rate is offered by a competing international telecommunications concessionaire than the rate offered by the pre-selected international telecommunications concessionaire
- d) The end user will not have to switch his pre-selected subscription to another international telecommunications concessionaire to enjoy better rates periodically.

The overall advantages of this option are as follows:

- It is fair to new entrants since the dialling procedure is the same as with the incumbent.
- It offers the end user a greater choice of international concessionaires for carrying his international calls.

The disadvantages of this option are as follows:

- At the onset, it may take some time to effect the necessary modifications to switches, signalling and billing systems;
- There may be costs to be incurred by domestic telecommunications concessionaires to implement capability;

- There may be additional administrative costs for concessionaires when end users choose to use alternative international concessionaires for international calls rather than their pre-selected international telecommunications concessionaire.

Carrier pre-selection with the override feature provides greater choice on demand to the end user but additional digits have to be dialled to by-pass the pre-selected international provider.

The Authority believes that Carrier pre-selection with the override facility option satisfies the requirement of the Act for equal access and dialling parity.

3.4 Country Experiences

Indirect Access has been implemented in a number of countries around the world. Appendices 1 and 2 show countries that have implemented Carrier Selection and Carrier Pre-selection. A selection of their respective experiences is summarised in Table 1 below. Generally, end users have benefited from the ability to choose an international provider to carry international calls and there has been a resulting increase in the level of competition between the international telecommunications service providers in these countries.

Table 1 A selection of countries implementing Indirect Access and their experiences

Country	Country Experience	Type of Indirect Access Implemented
Australia ¹	Competition among the access service providers and the transport carrier providers brought a reduction in costs	Carrier pre-selection with override.

¹ www.acif.org.au

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<p>United Kingdom²</p>	<p>Carrier pre-selection grew faster than carrier selection. Indirect Access was opened to all types of calls- fixed to mobile, fixed to fixed. New entrants served 54.6 % of the international calling market. Cost of calls was reduced.</p>	<p>Carrier pre-selection with override</p>
<p>Switzerland³</p>	<p>Limitations in technical standards at the time forced the Swiss to implement carrier pre-selection with override for fixed services and carrier selection for mobile. Fixed line exchanges had to accommodate 22 digits for call by call selection</p>	<p>Carrier pre-selection with override – fixed line Carrier selection - mobile</p>

² www.ofcom.org.uk/static/archive/oftel/publicatio/1995_98/competition/cps798.htm

³ Working Group on Carrier Selection- Doc CS- Q6 Rev 11- Swiss Network

4 Types of Indirect Access to be Considered in Trinidad and Tobago

The Authority notes that historically, Carrier Selection was implemented first in fixed line networks. However as technology changed and Carrier Pre-selection was introduced, this feature became more popular with end users than Carrier Selection. The Authority therefore considers it prudent that Carrier Pre-selection be introduced in Trinidad and Tobago in the first instance and then at a later stage, an override facility enabling carrier selection on a call by call basis. This additional feature will enable the end user to enjoy even more choice in making international calls and may minimise “churn⁴” among end users to competing international telecommunications concessionaires.

The Authority expects that the override feature may be introduced at a later stage of market development in which the Authority is satisfied that concessionaires have gained considerable experience with Carrier Pre-selection. The Authority would be mindful of *inter alia* the extent to which the end user experiences a reasonably high quality of service, administratively and otherwise, when he selects an international carrier other than that which provides the domestic service. If the market has matured to the extent in which a reasonably high quality of service is experienced by the end-user, the Authority may then direct the introduction of the override feature.

It should be noted that both forms of Indirect Access i.e. with or without the override feature, will satisfy the requirements of the Act by offering end users in Trinidad and Tobago dialling parity and equal access to competing international telecommunications concessionaires.

⁴ Churn is the movement of end users from one concessionaire to another

Statement on Implementation of Indirect Access

1. The Authority proposes that, within six (6) months of publication of this document, end users connected to domestic telecommunications concessionaires in Trinidad and Tobago be afforded the facility of Indirect Access to international telecommunications concessionaires for the completion of international calls, using Carrier Pre-selection. As such, telecommunication concessionaires are hereby directed to configure their networks and make the necessary administrative arrangements to enable the required facility within the stipulated timeframe.

2. At a later stage of development of the market, the Authority may require the implementation of the facility whereby an override code (Carrier Selection code) may be dialled to use the network of an alternative international telecommunications concessionaire to complete international calls on a call by call basis.

5 Billing

For the implementation of Indirect Access, the billing of the end user may be done by the concessionaire to whom the user is directly connected or by the competing international concessionaire. In light of international experiences, the Authority recognises that end users in Trinidad and Tobago may prefer to receive a single bill which details both local and international calls rather than separate bills from each concessionaire.

The following outlines the Authority's proposals as it relates to billing arrangements.

5.1 Billing Arrangements for Carrier Pre-selection

For this method of Indirect Access, the Authority proposes that the end user establishes an account for service with the pre-selected international telecommunications concessionaire for utilisation of its facilities. The billing for international calls carried by a pre-selected international telecommunications concessionaire should be done by that concessionaire and sent directly to the end user. This method will accomplish the following:

1. Reduce end user confusion as all international calls made using the pre-selected concessionaire will be on one bill.
2. Single point of contact for queries.
3. Minimize or eradicate delays in handling end user complaints.
4. Allow new carriers the opportunity to gain experience in end user billing and related administrative procedures.
5. Allow speedier implementation of the service.

Statement on billing of end users using Carrier Pre-selection

The Authority proposes that, initially, the billing of the end user subscribed to Carrier Pre-selection, should be done directly by the international telecommunications concessionaire pre-selected by the user to complete the international call.

The Authority will not oppose the establishment of commercial arrangements between domestic and international telecommunications concessionaires for the billing of the end user provided

that the interests of the end user are not diminished or otherwise compromised by such an arrangement.

However, any arrangement that might be made between concessionaires will be subject to the Telecommunication (Interconnection) Regulations, 2006 and in particular to Regulation 18 which requires the submission of agreements to the Authority.

5.2 Billing Arrangements of “override” feature

The use of the override feature would allow the end user to access the facilities of multiple international telecommunications concessionaires and therefore, to be billed by multiple concessionaires.

In such circumstances, the Authority believes that it would be more practical for the end user to receive a single bill from the domestic telecommunications concessionaire comprising domestic calls made on its own network and international calls made using alternative international telecommunications concessionaires on a call by call basis.

In such case, it will be necessary for the international telecommunications concessionaire and the domestic telecommunications concessionaire to establish arrangements for the remitting of sums collected by the domestic concessionaire from the end user for international calls made using alternative international concessionaires to the appropriate international telecommunications concessionaire. Again, such arrangements will be subject to the Telecommunications (Interconnection) Regulations, 2006.

The proposed billing arrangement would accomplish the following:

1. End users may address queries to the domestic telecommunications concessionaire
2. Potential delays in the handling of end user complaints may be minimized or eradicated.

Statement on billing of end users using the “override” feature (Carrier Selection)

When the ‘override’ feature is implemented, the Authority proposes (initially) that:

- 1) The domestic telecommunications concessionaire bill the end user directly for international calls made using the override feature.*
- 2) Remittances are to be made by the domestic telecommunications concessionaire to each international telecommunications concessionaire selected for international calls using the override feature.*
- 3) Any commercial agreement made between concessionaires would be subject to the Telecommunications (Interconnection) Regulations, 2006 and in particular to Regulation 18 which requires the submission of interconnection agreements to the Authority.*

6 Implementation of Carrier Pre-selection with override

Carrier pre-selection with override requires dialling plans for implementing the override code. The following summarises some of the dialling plan options available and proposes the approach that the Authority considers to be most suitable for Trinidad and Tobago.

6.1 Dialling Plan Options

If a carrier pre-selection with override is implemented, the numbering scheme used must have the following characteristics:

1. Numbering scheme must be equitable for all concessionaires -
 - In determining the numbering scheme it must be recognized that shorter codes are more end user friendly, particularly for the elderly
 - A prefix/suffix range needs to be identified.
2. The length of the carrier selection codes needs to be established
 - The length of the code is determined by the number of competitive carriers expected
 - The use of short codes may be considered

It should be noted that the recommended length of the carrier selection code in the NANP is seven (7) digits. There are three basic methods to identify carriers:⁵

- The identifying code may be outside of the called party's number
- The identifying code may be inside the called party's number
- The identifying code may be the entire E.164 number

Identifying code outside of called party's number

This option will lend itself to prefix /suffix method of identifying the concessionaire of choice, and will not alter the called party's number. Pre-subscription would be available and end users

⁵ <http://www.itu.int/ITU-T/worksem/ip-telecoms/nnar/nnar-carrier-sel-suppl.txt>

would be able to override their pre-subscription on a call by call basis by dialling an override code.

Identifying code inside the called party's number

Having the identifying code within the dialled number would have an impact on the quantity of available numbers as blocks of codes have to be reserved for carrier identification and may be assigned to concessionaires who may not use them. This could lead to wastage of numbering resources. Additionally, this approach could have a negative impact on the availability of numbers for assignment to end users.

Carrier identification done using the entire E.164 number

This method requires the analysis of the entire 15 digits of the E.164 number for carrier identification instead of the usual 7 digit analysis for international calls.

The most popular approach of the three identified above is the use of an identifying code outside of the called party's number as a prefix carrier identification code. The Authority therefore considers that it would be the most appropriate approach to be adopted in Trinidad and Tobago.

Statement on Carrier Selection Code for Override

The Authority proposes that the carrier selection code used to override a pre-selected concessionaire should comprise a prefix carrier access code and carrier identification code.

6.2 Length of Carrier selection Code

Trinidad and Tobago is a participant of the North American Numbering Plan (NANP). The North American Numbering Plan Administrator (NANPA) recommends that the end user in the NANP dials 101XXXX as a carrier selection code. The Authority is proposing that the NANP recommendation be adopted for Trinidad and Tobago.

Statement on Length of Carrier Selection Code for Override

The Authority proposes that a seven(7) digit carrier selection code for override be used in Trinidad and Tobago in the format 101XXXX where 101 is the carrier access code and X=1-9 is the carrier identification code.

7 Services to which Indirect Access would apply

The Authority considers that Indirect Access should be implemented using carrier pre-selection with override as the option of choice for fixed line and mobile customers making international calls.

Statement on the services to which Indirect Access would apply:

The Authority proposes that domestic fixed line and mobile telecommunications concessionaires in Trinidad and Tobago implement Indirect Access to facilitate equal access to all competing international concessionaires.

8 Costing Regime

The provision of interconnection in order to facilitate Indirect Access shall be governed by the Telecommunications (Interconnection) Regulations, 2006. As a result, the costs associated with the provision of the interconnection service must be determined in accordance with the Authority's costing methodology and models. This section summarises the different types of costs associated with the implementation and functioning of Indirect Access. Appendix 3 shows how the costs were allocated in the European market.

8.1 Carrier Pre-selection Costs

The following indicates the costs which the Authority believes may be incurred for the domestic telecommunications concessionaire to effectively provide Indirect Access⁶:

- Software upgrade to exchange equipment
- Installation of additional exchange equipment, where necessary
- Modification of subscriber data field
- Modification of billing systems
- Upgrading of customer care systems
- Upgrading of fault reporting and repair systems

8.2 "Override Feature" (Carrier Selection) Costs

The following indicates the costs which, in the Authority's view, should be associated with the domestic telecommunications concessionaire providing the 'override feature'⁷:

- Initial programming of routing tables
- Upgrade of software on exchanges
- Upgrade of hardware on exchanges
- Updating end user data field
- Customer care

⁶ www.telecomportal.com/Assets_papers/Number_portability/EC-Number_Portability_99.pdf.

⁷ www.telecomportal.com/Assets_papers/Number_portability/EC-Number_Portability_99.pdf. See also Appendix 3

8.3 Establishment costs

These costs may include:

- Upgrading of software for the functioning of Carrier pre-selection in the first instance and then the “over ride” facility
- Any hardware upgrades necessary to have the feature functional
- Per concessionaire establishment costs which are costs incurred in modification of accounting and billing systems, implementation of customer care facilities, software upgrades, any additional equipment required and /or implementation of an IN database

Statement on Cost

The Authority proposes that the cost of implementing carrier pre-selection in the first phase and at a later stage, the over ride feature (Carrier Selection on a call by call basis) for telecommunications concessionaires shall be derived in accordance with the Authority’s Costing Methodology and models.

8.4 Cost Recovery

Regulation 27 of the Telecommunications (Interconnection) Regulations, 2006 provides that the necessary cost of modification of the network or equipment of an interconnection provider to effect interconnection is recoverable from the interconnecting concessionaire, such costs to be determined in the manner prescribed by the Authority.

The Authority’s *Costing Methodology for the Telecommunications Sector* and costing models will guide the recovery of the costs from the interconnecting concessionaire. The cost recovery determination will be applied to Carrier Pre-selection, in the first instance, and at a later stage, to the implementation of the “override” facility which will enable Carrier Selection on a call by call basis.

The cost recovery mechanism must be fair both to the interconnection provider and to the interconnecting concessionaire. The requirement for advance payments by the interconnecting concessionaire to the interconnection provider may be considered inimical to the introduction of

competition in the market, whilst phased payments may well bring about greater benefits of cost efficiencies.

The Authority will consult with all stakeholders on cost recovery and, guided by the applicable regulations and costing models, develop a cost recovery mechanism for the implementation of Indirect Access that facilitates effective competition in the market and greater benefits to the end user.

Statement on cost recovery

The Authority proposes that:

- 1) In accordance with Regulation 27 of the Interconnection Regulations, the costs incurred by the interconnection provider to establish Carrier Pre-selection and later the override feature to enable Carrier Selection on a call by call basis will be recoverable from the interconnecting concessionaire and will be subject to the Authority's Costing Methodology and models for the Telecommunications Sector.*
- 2) All interconnecting international concessionaires will bear their own establishment costs*

8.5 User costs

User costs are necessary to enable the interconnection provider to recover the administrative costs associated with the implementation of Indirect Access. The following is proposed:

(1) Carrier Pre-selection

The Authority considers that the end user should pay the following costs:

- i. A one time administrative fee for the installation of Carrier Pre-selection.
- ii. A one time administrative fee for de-installation of Carrier Pre-selection.

This fee shall be based on the cost of providing the relevant services, such costs to be determined in accordance with the Authority's Cost Methodology and/or models. However, it is to be noted that should end user costs be too high, this factor will act as a disincentive to potential end users, whereas if they are too low, the concessionaire would not be able to recoup its costs in a reasonable time frame.

(2) Carrier Selection

End users should be required to pay for the following costs:

- An initial, one time administration cost to install the carrier selection service; and
- Per use costs (consumption costs)

The quantum of the administrative costs and the per use costs for Carrier Selection shall be determined in accordance with the Authority's Costing Methodology and/or models. It is recognised that should these costs be too low, the concessionaire will not be able to recover his costs whereas if they are too high, this would constitute a disincentive to end users to use the service and the benefits of competition would not be realised.

Statement on User costs

The Authority proposes that

1) A "one time" administrative charge should be levied on the end user for the activation and de-activation of Carrier Pre-selection. Such charge should be based on the costs incurred in providing the services, and must be derived in accordance with the Authority's Costing methodology and/or cost models.

2) A "one time" administrative charge should be levied on the end user for the activation and de-activation of the override feature of carrier selection. Such charge should be based on the costs incurred in providing the services, and must be derived in accordance with the Authority's Costing methodology and/or cost models.

3) The end user should pay a "per use" charge for Carrier Selection. Such charge should be based on the costs incurred in providing the services, which must be derived in accordance with the Authority's Costing methodology and/or cost models.

9 Methodology for Implementation of Indirect Access

In order to properly inform the implementation of Indirect Access, the Authority shall perform the following activities:

- 1). Request specific information from the concessionaires to determine the readiness of the concessionaires' networks to implement the Authority's preferred method of Indirect Access and costs to implement same.
- 2) Review and approve procedures developed by domestic and international telecommunications concessionaires for end users to request carrier pre-selection in the first instance and carrier selection in the second instance. TATT reserves the right to attend these meetings between the concessionaires to develop these procedures.

The Authority recognizes that some of the following functions and capabilities may be utilised for the proper functioning of Indirect Access⁸:

- Carrier interfaces
- Pre-subscription database management
- Third party verification
- Message driven processing
- Switch request process flow
- Capacity and performance
- Bad debt management
- Report generation
- Switching requirements

9.1 Slamming

Slamming is an illegal practice in which a subscriber's choice of international concessionaire is changed without his authorization. This practice is addressed in the Authority's "*Draft Consumer Rights and Obligations Policy*".

⁸ InterConnect Communications Numbering Master Class, 2005

DSTI/ICCP/TISP(2001)4/FINAL

Table 1. Call by call carrier selection (as of 1 May 2001)

	Long Distance	International	Local	Fixed to Mobile
Australia	Implemented	Implemented	Implemented	Implemented
Austria	Implemented	Implemented	Implemented	Implemented
Belgium	Implemented	Implemented	Implemented	Implemented
Canada	Implemented	Implemented	Implemented	Implemented
Czech Republic	Scheduled for implementation in 2002	Scheduled for implementation in 2002	Scheduled for implementation in 2002	Scheduled for implementation in 2002
Denmark	Implemented	Implemented	Implemented	Implemented
Finland	Implemented	Implemented	Implemented	Implemented
France	Implemented	Implemented	Not implemented (to be implemented on 1 January 2002)	Implemented
Germany	Implemented	Implemented	Not implemented	Implemented
Greece	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003
Hungary	Not implemented	Not implemented	Not implemented	Not implemented
Iceland	Implemented	Implemented	Implemented	Implemented
Ireland	Implemented	Implemented	Implemented	Implemented
Italy	Implemented	Implemented	Implemented	Implemented
Japan	Implemented	Implemented	Implemented	Not Implemented
Korea	Implemented	Implemented	Implemented	Implemented
Luxembourg	Implemented	Implemented	Not implemented	Implemented
Mexico	Not implemented	Not implemented	Not implemented	Not implemented
Netherlands	Implemented	Implemented	Implemented	Implemented
New Zealand	Implemented	Implemented	Implemented	Implemented
Norway	Implemented	Implemented	Implemented	Implemented
Poland	Implemented	Not implemented	Not implemented	Not implemented
Portugal	Implemented	Implemented	Implemented	Implemented
Slovakia	Not implemented	Not implemented	Not implemented	Not implemented
Spain	Implemented	Implemented	Implemented	Implemented
Sweden	Implemented	Implemented	Implemented	Implemented
Switzerland	Implemented	Implemented	Implemented	Implemented
Turkey	Not implemented	Not implemented	Not implemented	Not implemented
United Kingdom	Implemented	Implemented	Implemented	Implemented
United States	Implemented	Implemented	Implemented	Implemented

Source: OECD.

Table 3. Carrier pre-selection (as of 1 May 2001)

	Long Distance	International	Local	Fixed to Mobile
Australia	Implemented	Implemented	Not implemented	Implemented
Austria	Implemented	Implemented	Implemented	Implemented
Belgium	Implemented	Implemented	Implemented	Implemented
Canada	Implemented	Implemented	Partially implemented (major centres)	Implemented
Czech Republic	Scheduled for implementation in 2002	Scheduled for implementation in 2002.	Scheduled for implementation in 2002	Scheduled for implementation in 2002
Denmark	Implemented	Implemented	Implemented	Implemented
Finland	Implemented	Implemented	Implemented	Implemented
France	Implemented	Implemented	Not implemented (to be implemented on 1 January 2002)	Implemented
Germany	Implemented	Implemented	Not implemented	Implemented
Greece	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003	To be introduced not later than 1/1/2003
Hungary	Not implemented	Not implemented	Not implemented	Not implemented
Iceland	Implemented	Implemented	Implemented	Implemented
Ireland	Implemented	Implemented	Implemented	Implemented
Italy	Implemented	Implemented	Implemented	Implemented
Japan	Implemented	Implemented	Implemented	Not implemented
Korea	Implemented	Not implemented	Not implemented	Not implemented
Luxembourg	Implemented	Implemented	Implemented	Implemented
Mexico	Implemented	Implemented	Not implemented	Not implemented
Netherlands	Implemented	Implemented	Implemented (but the area code needs to be dialled)	Implemented
New Zealand	Implemented	Implemented	Implemented	Implemented
Norway	Implemented	Implemented	Implemented	Implemented
Poland	Not implemented	Not implemented	Not implemented	Not implemented
Portugal	Implemented	Implemented	Implemented	Implemented
Slovakia	Not implemented	Not implemented	Not implemented	Not implemented
Spain	Implemented	Implemented	Implemented	Not implemented
Sweden	Implemented	Implemented	Implemented (but the area code needs to be dialled)	Implemented
Switzerland	Implemented	Implemented	Implemented	Implemented
Turkey	Not implemented	Not implemented	Not implemented	Not implemented
United Kingdom	Implemented	Implemented	Implemented (with auto- diallers until the end of 2001)	Implemented (with auto- diallers until the end of 2001)
United States	Implemented	Implemented	Implemented	Implemented

Source: OECD.

Table 3 – Costs Incurred in Provision of Carrier selection and pre-selection

	System set-up cost	Per-operator set-up	Per-line administration	Additional conveyance	Cost incurred by NRA
Carrier selection					
<i>Costs involved</i>	<ul style="list-style-type: none"> Expansion of digit capacity of switches Programming of switches to statistically distribute non CS traffic Adaptation of customer care and billing systems Adaptation of inter-operator billing systems Adaptation of maintenance and customer support procedures 	<ul style="list-style-type: none"> Initial programming of routing tables 	None	None	<ul style="list-style-type: none"> Allocation of routing prefixes
<i>Significance of costs</i>	High proportion of total costs	Very small proportion of total costs	None	None	Negligible
<i>Main party incurring cost</i>	Medium impact on the dominant local loop operator, low impact on indirect access providers	Low impact on the dominant local loop operator			Very low level of costs incurred by NRA
Carrier pre-selection					
<i>Costs involved</i>	<ul style="list-style-type: none"> Modification of subscriber context Adaptation of customer care and billing systems Adaptation of maintenance and customer support procedures 		<ul style="list-style-type: none"> Modification of subscriber information 	<ul style="list-style-type: none"> Additional call processing 	<ul style="list-style-type: none"> Allocation of pre-selection codes
<i>Significance of costs</i>	High proportion of total costs	None	Very small	Negligible	Negligible
<i>Main party incurring cost</i>	High impact on the dominant local loop operator, medium impact on indirect access providers		Medium impact on the dominant local loop operator, very low impact on indirect access providers	Very low impact on the dominant local loop operator	Very low level of costs incurred by NRA

Source : http://www.telecomportal.com/Assets_papers/Number_portability/EC_Number_Portability_99.p

Annex 1 Decisions on Recommendations from First round of Consultation

Document Sub-Section	Submission Made By: Stakeholder Category⁹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General				
	Windward Telecom Ltd	<p><u>Rapid Implementation of Dialling Parity is Attainable</u></p> <p>While disappointed by the further one-month delay from August to September for receipt of interrogatories, Windward Telecom remains confident that the Authority will proceed with the implementation of Indirect Access on an expedited basis. Otherwise, the prospect for longer term sustainable competition in telecommunications in Trinidad and Tobago may be lost</p>	Permit dialing parity by January 1, 2009 without billing option	The Authority is committed to expediting Indirect Access for the benefit of all end users in Trinidad & Tobago in the shortest possible time. However, the Authority must consult with all concerned parties before implementation of the

⁹ Regional regulatory or Governmental agencies, Existing service and/ or network provider and affiliates, Potential service and/ or network providers and affiliates, Service/ Network Provider Associations/ Clubs/ Groups, General Public

<p>General</p>	<p>Windward Telecom Ltd</p>	<p>forever. Windward Telecom believes there is no material technical obstacle which should delay the implementation of dialling parity by January 1, 2009. The Draft Framework indicates that the Authority understands the distinct competitive disadvantage encountered by Windward and other new concessionaires. The consultation paper also illustrates that the Authority understands the key technical aspects of the pertinent issues.</p> <p>Windward beseeches the Authority not to get bogged down in the myriad of billing and administrative roadblocks which undoubtedly will be raised by existing carriers solely to delay the implementation of competition.</p> <p><u>Indirect Access Already Deployed by TSTT</u></p> <p>For the past five months, TSTT has deployed the Nortel Succession Gateway software platform to provide dialling parity or Indirect Access to its own subscribers who opt for specific calling plans such as Smart choice and Talk for Less. What is particularly galling is the fact that Windward Telecom and other new concessionaires have paid in large measure for this platform but are denied</p>		<p>service.</p> <p>The Authority will investigate this comment.</p>
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<p>General</p>	<p>Windward Telecom Ltd</p>	<p>access to it. TSTT utilizes this facility to entrench its long distance dominance at the new concessionaires' expense.</p> <p>In short, there is no substantive technical reason why TSTT could not immediately implement dialling parity. Windward Telecom does not require any billing support from TSTT to implement either Carrier Pre-selection or Carrier Selection on a call by call basis thus obviating TATT's need to amend their databases or administrative procedures.</p> <p>Windward Telecom would merely provide TSTT and Digicel with Authority-approved forms indicating a customer's decision to utilize Carrier Pre-Selection. At this juncture TSTT merely enters a rate (price) code beside each local access number to indicate the price plan and generate bills. There is no reason why Windward Telecom and other carriers could not be ascribed zero-rate price codes or that the TSTT could recognize transiting calls to designated trunk groups as local calls. On per occasion calling,</p> <p>TSTT's switch can be immediately programmed to recognize 101X as a particular competing carrier and allocate such traffic to a specific outgoing trunk group.</p>		<p>The Authority will investigate the comment to determine whether the facilities are available.</p>
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		<p>From a technical switching perspective, it would take TSTT less than a day to reconfigure the software in the Nortel Succession platform to allocate zero-rated originated traffic (both Carrier Pre-selection and Per Call Carrier Selection) to specific trunk groups which interconnect with Windward Telecom. Windward would handle all billing and collection.</p> <p>The traffic could be carried on the same physical cross connects as presently exist to move Windward originated international traffic into TSTT's switch.</p> <p>The Authority should note that TSTT's switching and billing platforms are comparable to those installed more than eleven years ago across North America to facilitate dialing parity. During the drafting of the Telecommunications Act, in 2001, it was contemplated in the legislation that dialing parity would be mandated in the near term. Yet seven years later it has not been implemented and the Authority must remove such bogus technical barriers immediately.</p> <p>The onus should rest with the TSTT as to why they cannot immediately implement dialing parity when they currently provide such differentiation to their own customers.</p>		
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<p>General</p>	<p>CCTL</p>	<p>CCTL believes that Indirect Access is not required because:</p> <ul style="list-style-type: none"> (i) There is rampant competition in the market for international calls, with little dominance demonstrated by any one party in the international call market (ii) There are new entrants into the telecommunications market that are providing further options to customers to complete international calls (iii) With the increasing adoption of broadband and Voice over IP technologies, more customers are available themselves of their own form of Indirect Access using technologies such as Skype, Vonage, Magic-Jack and NetTalk, without the need for regulatory intervention (iv) The administrative and technical costs of Indirect Access under a regulated framework will far exceed the benefits of 	<p>In light of the factors outlined, CCTL strongly believes that the introduction of Indirect Access in Trinidad and Tobago will serve to the detriment of the development of the telecommunications sector in Trinidad and Tobago. CCTL strongly recommends to the Authority that it defers its intent to introduce Indirect Access to the market until such time as universality of services have been improved, and penetration of broadband services in Trinidad and Tobago has increased.</p> <p>CCTL also recommends that the Authority allows technology and market developments to play its role, as based on</p>	<p>Despite there being many facilities for outgoing international calls, each one is currently tied to a domestic network. For a customer to enjoy lower costs for international calls on a particular facility, they must become a domestic end user of that concessionaire. This does not provide the domestic end user with more choice for international calls without being a domestic end user of that concessionaire and certainly does not provide the end user with a choice of international concessionaires who do not have a domestic network.</p> <p>The Dec 2007 report on Universality shows that 13 % of the population has broadband access and 27.3% has internet access. While prices have fallen and new</p>

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		<p>indirect and/or equal access, especially in light of the growing trend of (iii)</p> <p>(v) Introduction of Indirect Access discourages parties from investing in domestic infrastructure, and penalizes those who have.</p> <p>In markets where Indirect Access was introduced, there was recognition that competition for international calls without Indirect Access was unlikely, and there was also already a high penetration of domestic services. Neither of these conditions apply here in Trinidad and Tobago, where there is and increasing competition in domestic infrastructure alternatives (via Digicel, CCTL, Green Dot, Carib-Link and others) which can accommodate users making international calls via VoIP, while increased penetration of fixed line and broadband services in Trinidad and Tobago is required.</p>	<p>growing trends of VoIP, Indirect Access will already be available to consumers of fixed line services.</p>	<p>broadband services have been launched in 2008, the current coverage of broadband services will not provide the population with choices that they should have even at this stage of liberalization</p>
Section 1 - Introduction				
	Digicel	<p>Digicel believes it would be premature to impose any form of Indirect Access (IA) over any network in Trinidad and Tobago (T&T) at this time. Traditionally, IA is introduced after there is full liberalisation and</p>	<p>The threat of IA at this early stage may have already had a negative effect. We recommend that TATT defer these plans but</p>	<p>The Authority does not hold the view that it is too early in the liberalization process for Indirect Access</p>

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<p>Introduction</p>	<p>Digicel</p>	<p>competition has been in the market for quite some time, so that the market has had time to evolve.</p> <p>Both the mobile and the fixed networks have only recently been liberalised. This has already led to a significant reduction on the retail prices of international calls. Further, the development of other wireless telecommunications technologies has been set back not by delay or unwillingness on the part of investors, but by slow movement in the regulatory regime such as the much delayed and lengthy process for the acquisition of spectrum. Such developments, if allowed to occur, will increase competition in T&T, and sufficient time must be allowed for the effects of increased competition to manifest itself before IA is imposed. The imposition of IA at this time will no doubt act as a significant disincentive to these investors in new access network business, which would ultimately impact on the range of telecommunications services available to consumers and the retail prices of these services. It would also be contrary to TATT’s long term objectives as set out in the Act of establishing conditions for an open market for telecommunications services and promoting access to telecommunications services for the public.</p>	<p>continue to assess the status of the markets and formulate an IA policy as a medium to long term contingency plan. TATT should now be focused on enabling network investment for example, by licensing WiMax spectrum and not on measures such as IA which are likely to reduce the opportunities and attractiveness of network investment in T&T.</p>	<p>to be introduced.</p> <p>In Guernsey, Carrier Selection was introduced for fixed line just three years after the market was liberalized. www.regutil.gg/our04/05.pdf. There was no cost/benefit analysis done at the time. It was mandated in the Reference Offer as it is a fairly standard offering in RIOs in European countries. Given that there is little work involved in implementing alternate carrier access, the RO charges were designed to cover that.</p>
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		<p>In short, the imposition of IA at this time will clearly be contrary to the public interest.</p> <p>It is far too soon to conclude at this time that “<i>effective competition in international services can only be effectively achieved by the introduction of Indirect Access and dialling parity for end users</i>”.</p>		<p>The Authority disagrees with this statement</p>
<p>”This facility will guarantee equal access to all concessionaires of international telecommunications network and international telecommunications services by end users, thereby providing greater choice for them. New entrants to the international access market will</p>	<p>Three Sixty Communications Ltd</p>	<p>Three Sixty strongly concurs with the expressed view and assertion of the merits of equal access provided by Indirect Access.</p>		<p>Noted.</p>

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be at a distinct”				
<p>1 Introduction</p> <p>The Act gives the Authority in Section 25(1)(b) the mandate to require concessionaires of domestic telecommunication s networks and services to provide indirect interconnection to other concessionaires of telecommunication s networks and services</p>	<p>CCTL</p> <p>CCTL</p>	<p>The interpretation of and reference to this provision of the Act seems to be incorrect. This provision speaks to facilitating transit arrangements between concessionaires, that is, where two concessionaires are not directly interconnected, but their respective users need to communicate with each other, and therefore they are indirectly interconnected, rather than speaking to facilitating Indirect Access. By definition under the Act, access does not include interconnection, so it is flawed to try to relate indirect interconnection with Indirect Access.</p>	<p>The reference to this provision of the Act to support the implementation of Indirect Access should be removed.</p>	<p>The Act does not specify “public domestic telecommunications networks and services”. It reads “public telecommunications networks and services” which in our view includes the interconnection between domestic and international concessionaires. Domestic concessionaires will interconnect to allow end users of each network to access end users on the other networks as well to transit calls where there may be no direct interconnection. Similarly international concessionaires will interconnect with domestic concessionaires for</p>

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				terminating international calls. It is the Authority's view that outgoing international traffic via the competing international concessionaires should also be permitted.
<p>1 Introduction</p> <p>Competition in the international voice call market will bring about greater choice and quality to users. The effects of Indirect Access for long distance and international calls in other countries e.g. Europe and the USA have shown that there was a boost to competition</p>	CCTL	CCTL's first comment on this section relates to the reality that there is already vast choice for international services in the market today. Presently, consumers can choose either of TSTT's fixed line, mobile or companion card products to make international calls, while also having the choice of using services from Digicel, CCTL, Worldtalk (supported by Carib-Link/Open Telecom) and international call centres distributed in neighbourhoods and cities in order to make international calls.	CCTL believes that there are already a vast number of options available to consumers to make international calls, and there is really presently no demand from the market for cheaper or more options for international calling services	<p>The Authority disagrees with this statement as the end user is unable to exercise choice independent of their domestic provider as the international service is currently tied to the domestic provider.</p> <p>The Authority's research shows that international telephony traffic is responsive to changes in international telephony prices. The Authority will therefore encourage competition which will ensure that prices are driven</p>

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<p>among the service providers in the provision of long distance and international calls which resulted in benefits to the end users.</p>				<p>towards cost.</p>
<p>1 Introduction Competition in the international voice call market will bring about greater choice and quality to users. The effects of Indirect Access for long distance and international calls in other countries e.g. Europe and the USA have shown that there was a boost to</p>	<p>CCTL</p>	<p>CCTL’s second comment on this section relates to the fact that in those countries where Indirect Access has been opened up, the regulation of rental for fixed line telephony has been relaxed, to allow fixed line operators the ability to recover their costs from fixed line rental. CCTL’s understanding is that the current line rental of the dominant fixed operator is sternly regulated at a very low price, which effectively regulates the line rental of competing fixed line operators. CCTL is of the view that the introduction of Indirect Access must be preceded by the removal or relaxing of regulation on fixed line rental services for the public to truly benefit, otherwise, the domestic fixed line service will ultimately collapse.</p>	<p>CCTL believes that the existing cap on fixed line rental must be relaxed prior to the introduction of Indirect Access.</p>	<p>Noted. There is no cap on line rental. The Authority is of the view that line rentals should reflect cost. However these costs have to be calculated in accordance with the Authority’s LRAIC model and allocated across services as the Authority deems appropriate.</p>

<p>competition among the service providers in the provision of long distance and international calls which resulted in benefits to the end users.</p>				
Section 1				
<p>Objectives</p>	<p>TSTT</p>	<p>TSTT notes that one of the objectives of the Authority's proposal is to propose the most efficient and cost effective method of providing Indirect Access in Trinidad and Tobago. However, the Authority has not carried out any cost benefit analysis supporting its recommendation that <i>Carrier Pre-selection with Override</i> (CPS/CS) is the most efficient and cost effective solution of Indirect Access for the country. It has not explained why a pure Carrier Pre-selection (CPS) or Carrier Selection (CS) is an inferior solution to CPS/CS. We discuss this in more detail below.</p>	<p>The Authority should carry out a detailed cost benefit analysis that should take into consideration the following: -What is the market failure that Indirect Access is purported to remedy? -If a market failure exists in the market(s), what are the possible Indirect Access solutions (CPS, CS, CPS/CS, etc.)? -Quantifications of the benefits of introducing Indirect Access in Trinidad and Tobago.</p>	<p>Please refer to the Rationale in the Introduction of the revised document.</p> <p>The Authority will consult with telecommunications concessionaires to</p>

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			<p>-What are the costs of each of the possible solutions of Indirect Access?</p> <p>-How the costs are going to be attributable and how they are going to be recovered?</p> <p>-If benefits outweigh costs then it is advisable to introduce Indirect Access, otherwise the Authority should refrain.</p>	<p>determine costs.</p> <p>Cost recovery will be in accordance with Telecommunications (Interconnection) Regulations 2006.</p>
1.1 Objectives		<p>The second objective speaks to the manner in which costs for Indirect Access shall be determined and recovered. With respect to this objective, the consultative document was very vague in terms of how it will deal with cost recovery. Mention was made of how it is treated in other jurisdictions, however no mention of how it will be treated in Trinidad and Tobago. The Authority should be well aware of the large investment in infrastructure that is needed to accomplish Indirect Access, as well as the significant on-going costs to operate an Indirect Access program.</p>	<p>TSTT respectfully requests that the Authority outline to concessionaires how cost recovery is expected to be achieved. TSTT suggests to the Authority that there is a need for the Authority to lay out a set of principles on costs causation and cost recovery of Indirect Access as explained below by TSTT under 6.3 Cost Establishment.</p>	<p>The Authority will use the costing methodology, models and formulae developed for Interconnection services in determining cost recovery.</p>
1.1 Objectives	TSTT	<p>As a general comment, TSTT is concerned that the</p>	<p>The Authority needs to perform</p>	<p>The Authority</p>

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		<p>Authority appears to have already made the decision to introduce Carrier Pre-Selection with Override without the benefit of a consultation to discuss the merits of so doing and the analysis of alternatives solutions to Indirect Access. CPS/CS has been introduced in some countries like the few ones cited by the Authority (i.e. Australia, United Kingdom and Switzerland). However, the international trend in Europe, America and other regions is to introduce Carrier Pre-selection (CPS) as the preferred solution to Indirect Access. For instance in the United Kingdom, CS was introduced in 1994, and CPS in 2000. However, CPS has become the most popular Indirect Access solution preferred by consumers. Similarly, in the US and Chile, where both CPS and CS co-exist there is also a preference for CPS and in practical terms CS is not used to any great extent by consumers</p>	<p>a more comprehensive international benchmark on Indirect Access solutions adopted in relevant countries. The international trend is to adopt CPS as the preferred solution, not CS or CPS/CS.</p>	<p>recommends Carrier Pre-selection with override as its preferred solution at this time. The implementation will be done in two phases- 1) Carrier Pre-selection and 2) over ride (Carrier Selection) Comments are invited from stakeholders and the public on the recommendation made.</p>
1 Objectives	TSTT	<p>It should be remembered that convergence and inter-modal competition everywhere including Trinidad and Tobago is beneficial to consumers through the bundling of services including long distance services. Consumers would benefit from the bundles of service if they can use a CPS system, since the price discounts are embedded in the bundle of services. On the contrary,</p>	<p>The Authority needs to recognize that bundling practices are common in modern, competitive telecommunications industries, and their presence may guide the technical solution (CPS or</p>	<p>The Authority does recognize bundling practices are becoming more prevalent in the international market The Authority requests data to support the assertion that</p>

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<p>1.1 Objectives</p>	<p>TSTT</p>	<p>under a CS or a simultaneous CPS/CS solution providers would not be able to provide the benefits of discounts coming out of bundling. This is another reason why CPS is becoming the most used form of Indirect Access and CS is becoming less relevant as time passes.</p> <p>TSTT understands that the Act requires that Indirect Access be made available to the consumer. However, if a fair and impartial assessment determines that such a service is not required, based upon the manner in which the telecommunications landscape has developed, then what is more likely required is a legislative amendment to remove that requirement rather than forcing</p>	<p>CS) that could be convenient for T&T</p> <p>TSTT requires clarification from the Authority on whether there is a need to first determine if there are competitive conditions already working on T&T's long distance markets. Indirect Access should be</p>	<p>under the CPS/CS solution providers would not be able to provide discounts coming out of bundling. Bundling of services are encouraged however two points need to be made</p> <p>1) Section C5 of TSTT's concession states that if bundled packages are offered services must also stand alone and 2) size of discount must be justified by the cost of providing the services in demand. Consumers must be able to make decisions on whether int'l calls are part of the bundle or not. CPS alone may not bring about the desired level of competition and introducing CS will increase competition.</p>
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		<p>something on a sector that is of little additional benefit to the consumer. TSTT asks, on what basis has a determination for the introduction of Indirect Access been made, other than the need to fulfill a legislative requirement?</p>	<p>viewed as a remedy to a market failure, so the Authority may clearly explain and demonstrate what the market failure is and if its proposed solution (CPS/CS) is the best for consumers in T&T.</p>	<p>Concessions have already been awarded for public international telecommunications services and networks. The Authority has clearly stated in the document the deficiencies that exist in Trinidad and Tobago i.e. low broadband penetration and that end users are locked in to the domestic service provider they are connected to for making international calls. The Authority is simply facilitating the implementation of a service to end users that is available in other liberalized markets.</p>
<p>1.2 Regulatory Framework</p>	<p>TSTT</p>	<p>Indirect Access is not necessarily equivalent to indirect interconnection. The Authority seems to confuse what is contemplated in Section 25 (1) (b) of</p>	<p>TSTT considers that regulation of interconnection is already contemplated in the existing</p>	<p>The Authority agrees that Indirect Access is not the same as indirect</p>

		<p>the Act which mandates to concessionaries of public domestic telecommunications network and services to provide <i>indirect</i> interconnection to other concessionaries of public domestic telecommunications network and services with Indirect Access to international services by retail customers. CPS or CS are simply alternative ways that final consumer could access alternative international carriers.</p> <p>TSTT notes that the Telecommunications Act’s reference in Section 25 (1) (b) to indirect interconnection contemplates those cases for example in which network B provides transit interconnection services to network A in order for network A to transit its traffic (origination and termination) to network C. These are indirect interconnection services.</p> <p>In contrast, Indirect Access in the context of CPS or CS or other solution is not necessarily interconnection. For instance, a reseller of international voice services could rent a retail business line to a facility based operator, and use it to deliver international voice services to final consumers through access to an 800 number. Jamaica called this “two-stage dialing” (the use of a standard consumers through access to an 800 number. Jamaica</p>	<p>regulatory framework.</p> <p>Indirect Access, in contrast, is a service that is offered to final customers. The conditions for the provision of Indirect Access among operators are a matter of commercial negotiation among parties. For instance, terms and conditions for billing services or provisions for bad debts regarding CPS or CS among operators should be a matter of private negotiations.</p> <p>TSTT considers that the specific conditions for implementing Indirect Access to provide final consumers with alternatives ways to access alternative providers is a commercial issue and therefore subject to commercial negotiations among operators.</p>	<p>interconnection and that Indirect Access to alternative international carriers by end users requires interconnection</p> <p>Please explain the term “final customers”.</p> <p>The Authority disagrees. There are other factors that influence the implementation of Indirect Access e.g. technical</p> <p>The Authority must be guided by the Act and subsequent regulations and not solely on what pertains in other jurisdictions.</p>
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	<p>TSTT</p>	<p>called this “two-stage dialing” (the use of a standard retail product by an Indirect Access operator to allow subscribers of another operator to access the Indirect Access operator’s calling services). This is not interconnection.</p> <p>The European Union, when analyzing the retail access markets (residential or business) established clearly that CPS or CS services may face a bottleneck coming from the network who owns the retail access for fixed services. Thus, in the 2002/3 Recommendation, the European Commission states (Commission Recommendation. On Relevant Product and Service Markets, 2003, page 17),</p> <p>“Whilst undertakings that provide access compete on the market for outgoing calls, it does not appear to be the case that undertakings supplying outgoing calls via carrier selection or pre-selection would systematically enter the access market in response to a small but significant non – transitory increase in the price of access. Therefore, it is possible to identify separate retail markets for access and outgoing calls.”</p> <p>In this regard TSTT disagrees with the Authority when</p>	<p>Similar to what has been done in other countries as in Europe, the Authority needs to first determine that retail access to fixed telephone services (residential and business) constitute a relevant market for purposes of applying remedies or imposing obligations such as Indirect Access to dominant operators.</p>	<p>Interconnection between the domestic and international concessionaires is required for terminating and originating traffic.</p>
	<p>TSTT</p>			

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		<p>it says in page 23 under (6) Cost Regime , that</p> <p>“The Authority considers Indirect Access to be an Interconnection service and therefore should be governed by the Interconnection Regulations. The costs for Indirect Access should therefore be derived in accordance with the Authority’s Costing Methodology.”</p> <p>TSTT considers that the interconnection among concessionaries networks is already mandatory under the current regulatory framework and its conditions are also established in that framework.</p>		<p>Terminating traffic is currently being done but now originating traffic is being encouraged.</p> <p>The principles contained in the Interconnection Regulations will therefore apply.</p>
1.2 Regulatory Framework	360 Communications Ltd	<p>The fact that obligations for the provision of Indirect Access / dial parity were enshrined in both the Telecommunications Act (ACT) as early as 2001 and then further consented to in concessions signed in 2005 by the incumbent give credence to the urgent need for TATT to mandate Indirect Access within the shortest possible timeframe. Further delays only retard and frustrate the TnT telecom sector’s capacity to fulfill the innate objective of the ACT; most notably an open market for telecommunications services and fair competition.</p>		<p>The Authority agrees and is now focusing on Indirect Access /dialing parity for Trinidad and Tobago</p>
1.2 Regulatory Framework Section 3	CCTL	<p>CCTL has looked at the proposed sections of the Act that the Authority is drawing upon, and must ask:</p>	<p>CCTL suggests to the Authority that the relevant objects and requirements of the Act have</p>	<p>The Authority recognizes that there are various services provided by</p>

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<p>Section 25(1)</p> <p>Section 25(2)</p>		<p>(i) Isn't there already an open market for international telecommunications services, especially in light that there are at least three national providers supplying international call services, as well as options for users to go to call centres or use calling cards?</p> <p>(ii) Doesn't the complete wording of 25(1) refer to transit arrangements, which is allowing interconnection of one network or service through the public network or service of other concessionaires?</p> <p>(iii) Dialing parity has been provided to some extent, as the subscribers of domestic concessionaires can presently call each other by dialing seven digits regardless of whether calling on their own network or to other domestic networks. Although CCTL recognizes that the Authority can require other forms of dialing parity, CCTL also asks the Authority whether other forms of dialing parity is really needed at this time.</p>	<p>already been satisfied, even without the implementation of Indirect Access.</p>	<p>concessionaires for end users to originate international calls but there is no "true" competition among the concessionaires for international services. However, as stated previously, end users currently cannot choose their international service provider given the current situation. Section 25(1) specifies <i>direct</i> interconnection while Section 25(2) specifies <i>indirect</i> interconnection. Surely it is a competitive issue to have dialing parity on the domestic networks and similarly for competition in international calling.</p>
<p>1.4 Modifications to document</p>	<p>Windward Telecom Ltd</p>	<p>Modifications to the policy should also be determined by technology advances, notably IP switching</p>		<p>Modifications to the document will be driven by</p>

		technologies and third-party provided billing processes which reduce the dependence upon the incumbent carrier to provide billing and collection functions.		technological advances and changes in the administration of the feature which will bring added benefits to end users
Section 2-Definitions				
2 Definitions	CCTL	CCTL notes the definition of dialing parity specified in the document. While CCTL acknowledges that the Authority can define and require what form of dialing parity is provided, CCTL suggests that dialing parity is not only restricted to international services, but also to domestic services, and hence the definition should reflect such.	CCTL recommends the following definition: Dialing parity is the ability to contact a user of another network by dialing the minimum number of digits required to complete the call to that user.	The Authority disagrees with this definition. The definition will be amended to include domestic and int'l calls. The Authority has defined dialing parity in this document for originating international calls using Indirect Access. Dialing parity also applies to domestic networks.
Dialling parity				

Section 3 – Types of Indirect Access

<p>3.1 Carrier Pre-selection</p>	<p>Windward Telecom Ltd</p>	<p>The disadvantages of Carrier Pre-selection cited in pages 11-12 of the document appear overstated:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Windward believes that end users will welcome the opportunity to switch carriers. To accelerate the liberalization process, the Authority might follow the lead of other countries where ballots were held at the outset of dialling parity. <input type="checkbox"/> End users have the opportunity to utilize other carriers by either switching the pre-selected carrier at any time or opting for choice on a per call basis. <input type="checkbox"/> With route diversity and improved international connectivity, the chances of a well-engineered carrier’s route as being out of service are less than 0.01% and even then a caller has the option to user a per call option. Of greater concern is the dependence upon a centralized TSTT international switching platform 	<p>Windward Telecom strongly believes that the 7-digit NANPA practice should be adopted in Trinidad to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Facilitate implementation using existing number code practices adopted by TSTT for their existing “dial around” and differentiated pricing plans. <input type="checkbox"/> Facilitate use of existing North America software platforms, embodied both on competing carrier switches and within the installed customer PBX base. <input type="checkbox"/> Enable more than nine long distance concessionaires to compete in the marketplace. <input type="checkbox"/> Align with advertising and usage patterns commonly known to most Trinidadians. 	<p>The Authority intends to follow the NANP practice of seven digits.</p>
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3.1-3.3	TSTT	As a general comment, TSTT notes that competition in the long distance market started in 2006 when the Authority issued concessions to new providers. According to the Authority’s 2006 Annual Market Report on Telecommunications and Broadcasting Sectors, the liberalization process has deepened even further since 2006. Local and long distance voice markets, as well as the mobile market are open to full competition. As of December 2006, in the long distance markets there were seven concessions granted, and the majority of them are already offering services. Mobile operators are already providing long distance services to their customers. The six operators authorized to provide fixed domestic telecommunications services to the public over wired facilities will soon start to also provide long distance services as part of their triple play / bundled services (cable television, high-speed data and Internet, and landline telephone services).	According to the Authority competition in long distance services has deepened in T&T since 2006 and will continue to improve more with the incursion of local concessionaries in fixed (e.g. cable providers) and mobile networks into the provision of long distance services.	The Authority notes that for the end user to access each of these concessionaires’ international facilities, the end user must connect DIRECTLY to their domestic networks, which means more CPE units will have to be installed at the end user’s premises. Indirect Access will do away with these limitations.
3.1 CARRIER PRESELECTION “1) Using Carrier Pre-selection	360 Communications Ltd	Reference to a similarity between Carrier Pre-Selection and the Present Scenario may be construed as misleading since there is no “selection” or implied customer choice in the present scenario. The present	Either delete “which is similar to the ‘Present Scenario’ or amend as follows: “1) Using Carrier Pre-selection	The statement will be amended as suggested.

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which is similar to the “Present scenario” shown”		scenario is instead one of Carrier Pre-Determination	in which the call routing is similar to the “Present scenario, with the exception that more than one international gateway option is available to be selected...	
3.1 CARRIER PRESELECTION Carrier Pre-selection functions the same as the Present scenario shown in Figure 1.	360 Communications Ltd	This statement can be viewed as misleading for the reasons outlined above	International call routing for Carrier Pre-selection functions the same as the Present scenario shown in Figure 1, with the exception that more than one international gateway option is available and is pre-selected by the customer	The Statement has been amended as suggested.
Figure 1	360 Communications Ltd	New Entrant Mobile operator(s) can and do bypass access network and route international calls directly to an international gateway	Insert 4-8-3 as an option under the Present Scenario	The diagram is purely illustrative and while your suggestion is valid, it is not necessary to alter the diagram to get the point across.
Figure 1	TSTT	TSTT notes the drawing and recognises that it has been utilised by other regulatory bodies, e.g. MCA. However while this drawing may be relevant and representative to the Maltese telecommunications sector at the time of its		The Authority used this diagram for purposes of illustration of how Carrier Selection and Carrier Pre-

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		consultation on CPE, TSTT wishes to point out what we believe may be significant differences between the T&T scenario and Malta at the time of its consultation on Indirect Access. The fundamental difference is that in Trinidad and Tobago, both the competing mobile and fixed line providers have their own international gateways. Therefore it is not necessary to access an international gateway through the incumbent provider. Therefore, TSTT wishes to make as strong a point as possible regarding the imposition of conditions on TSTT without due regard to the network capabilities of other providers in the sector in Trinidad and Tobago.		selection may operate. It was not intended to describe their operation in Trinidad and Tobago.
Advantages of Carrier Pre-selection	360 Communications Ltd		Amend the third bullet point as follows: It affords dial parity, <i>equal and fair competition</i>	The statement has been amended as suggested.
ADVANTAGE OF CARRIER SELECTION	360 Communications Ltd	This is only true if Carrier Selection becomes the default and there is no Carrier Pre-Determination, meaning no international calls can be made from any fixed or mobile network without a carrier selection code	Either delete entirely or Insert after dialling parity, “provided operators of fixed lines and mobile networks allow their customers to access an international gateway or otherwise make international calls only after dialling the	The statement has been deleted as suggested

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			same number of prefix digits as the customers of new entrants must dial”	
New entrants will not be at a disadvantage	360 Communications Ltd	Same as above	Either delete entirely or Insert after disadvantage, “provided operators of fixed lines and mobile networks allow their customers to access an international gateway or otherwise make international calls only after dialing the same number of prefix digits as the customers of new entrants must dial”	The statement has been amended as suggested
3.1.1 Billing	Windward Telecom Ltd	As noted previously, Windward Telecom wants the option to directly bill and collect from its customer base. Competing concessionaires may be able to provide these services at a lower cost than the dominant concessionaires. Billing customers directly also serves as a method of communicating with the customer and eliminates an intermediary in the event of any billing disputes. In the event the dominant carriers were mandated with the billing function, they would become the first contact point for any customer enquiry. This	Permit carriers to direct bill clients	The Authority agrees with this recommendation for the first phase of implementation.

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		not paying bills and extending to that customer the ability to make long-distance calls is tantamount to giving a credit card to someone who is a credit risk. Are carriers required to accept all customers? This is of particular concern especially in the case of selecting the carrier on a call by call basis, where the customer may not have a pre-established and commercial relationship with a particular carrier that is chosen for a call. How would such a carrier be able to know who the customer is and where he or she is located so as to be able to send a bill?		call by call basis, it is expected that the domestic concessionaire will do its usual administrative checks.
3.2 Carrier Selection	Windward Telecom Ltd	The Authority's concerns about uncompleted calls are overstated. Most non-completed calls result in a fast busy tone or verbal intercept. Customers experiencing continued problems with call completion would merely switch to a carrier with better technical standards and capacity.		The Authority will be issuing QOS standards for networks in the near future.
3.2 Carrier Selection	TSTT	TSTT notes that the Authority has outlined one of the advantages of carrier selection is end users will have a greater chance of successfully completing international calls in the event of natural disasters as not all service providers will be out of service. Is it that the Authority is suggesting that each provider will have its separate	As such TSTT is of the view that the advantage the Authority speaks of is unlikely to arise and unrealistic. It therefore should not be included in the	The statement made was in the context that not all the public international network and services concessionaires may be out of service at the same time

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		<p>network. Where a network goes down, how is it possible to get service to that individual unless it has access to another network which will of course include CPE.</p> <p>Additionally, special handsets and infrastructure may be required to access alternative service providers. Is it that these costs will be borne by the service providers?</p>	Authority's considerations	<p>in the event of a natural disaster. The same applies to the domestic network and services concessionaires.</p> <p>It is a commercial decision by a concessionaire to require special CPE's etc for access to its network.</p>
3.2.1 Billing	Windward Telecom Ltd	Again Windward Telecom would want the opportunity to bill customers directly.	Permit carriers to direct bill clients	The Authority agrees with the suggestion that the billing of clients be done directly by the international concessionaires.
3.2.1 Billing	TSTT	TSTT would like to draw to the attention of the Authority the issue of pricing this service. Will this be the debate of another consultative process or will the Authority step in and unilaterally impose a charge for the use of another provider's network?	TSTT strongly recommends that the issue of Billing be consulted upon either separately or addressed comprehensively in these proceedings.	<p>The Authority will use the interconnection costing methodology and relevant cost models developed by the Authority as its basis for allocating costs.</p> <p>Wholesale pricing has</p>

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				already been arbitrated upon and currently applies.
3.3 Carrier Pre-selection with override	Windward Telecom Ltd	Windward Telecom concurs with the Authority’s basic premise that this option facilitates additional customer choice and facilitates competition. However, we believe that the switching and billing platforms employed by TSTT and Digicel would require minimal modification to enable competitive carriers. As stated earlier, Windward would not utilize these carriers billing functions, but only seeks dialling parity or transiting of messages through the respective carrier’s switches for a transit fee.		The Authority will investigate the comment.
3.3 Carrier Pre-selection with override	360 Communications Ltd	Three Sixty prefers this option	TATT expeditiously obligate fixed and mobile operates to provide for this facility at pre-established / approved one time set-up costs and at prevailing interconnection rates.	Set up cost recovery will be guided by the methodology of cost recovery proposed by the Authority.
3.4 Country	Digicel	TATT has provided a very brief tabulated summary of		The issue of dominance

¹⁰ In Australia, carrier pre-selection (CPS) has been available since 1993, but only for fixed long-distance and international calls. In order to introduce competition in fixed-to-mobile calls, the ACA determined in December 1998 that calls from fixed-to-mobile services should be carried by the pre-selected long distance carrier, rather than the carrier providing the local access service. Telecommunications (Provision of Pre-selection for Specified Carriage Services) Determination 1998; and Telecommunications (Provision of Pre-selection for a Standard Telephone Service) Determination 1998.

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<p>Experiences</p>		<p>experience with CS and CPS for three countries: the UK, Australia and Switzerland</p> <p>For the UK mobile sector, CS and CPS regulation was imposed for a short period and only on the 2 largest mobile networks, although these regulations were withdrawn in 2003 as dominance or collective dominance could not be established. As it turned out, no Indirect Access wholesale service was ever provided as no service provider requested Indirect Access from them.</p> <p>CS for mobiles does apply in Switzerland even though there is no market dominance (on this point the Swiss are out of step with accepted practice).</p> <p>The Ordinance SR784.101.112;</p> <p>http://www.admin.ch/ch/d/sr/c784_101_112.html</p> <p>states in Article 9(2) that providers of public telecommunication services over a mobile network have to offer the possibility for their subscribers to call</p>		<p>does not arise in Trinidad & Tobago for the implementation of Indirect Access.</p> <p>It is our view that the higher the penetration of mobile services, the greater likelihood that mobile end users will desire Indirect Access. South Africa with 90% mobile penetration thinks so.</p> <p>The Authority cannot find an English version of this document</p>
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		<p>internationally using CS i.e. on call-by-call basis. There is no requirement for CPS.</p> <p>This has not given rise to CS service provision in Switzerland. The likely reasons are: (i) it is extremely difficult to market since only international calls were involved and, (ii) the expectation that the regulation was not sustainable (i.e. would be removed) given that it is contrary to accepted good regulatory practice.</p> <p>Australia does not impose CS/CPS on mobile operators.¹⁰</p> <p>Unless dominance is shown, the imposition of CS/CPS is not considered good regulatory practice. This is especially so for mobile network operators, due to the implications it will have for infrastructure investment and the implications for low income users.</p>		<p>The issue of dominance does not arise in Trinidad & Tobago for the implementation of Indirect Access.</p>
3.4 Country Experiences	TSTT	<p>TSTT wishes the Authority to note the experiences of Switzerland where limitations in technical standards dictated the type of Indirect Access that was implemented. The exchanges had to accommodate 22 digits for call by call selection.</p> <p>The following is an expanded benchmark on Indirect</p>	<p>The Authority may need to examine the respective networks of both incumbents and potential entrants. This may be to the disadvantage of incumbents who may have already invested in network</p>	<p>The Authority will take this into consideration.</p> <p>The Authority agrees to survey the existing concessionaires as to the capabilities of their</p>

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		<p>Access solutions adopted in some relevant countries, and it can be concluded that CPS is the preferred option.</p>	<p>components that will no longer be compatible with Indirect Access.</p>	<p>networks</p> <p>The Authority will decide what is best for Trinidad and Tobago whilst being guided by the Telecom Act.</p> <p>In Mauritius, one year after liberalisation CPS/CS was mandated for mobile services. The investment climate did not allow for implementation as small and financially weak (domestic) companies, and the small size of the market did not attract any big international players.”</p> <p>www.iniset.net/jasr/2008/207-215.pdf .</p>		
		<p><i>Country (year of introduction)</i></p>	<p><i>CPS (Carrier Pre Selection) CS (Carrier Selection)</i></p>	<p><i>Traffic to which Indirect Access is applied on</i></p>	<p>The international evidence shows that more and more when countries are introducing Indirect Access the preferred solution is CPS. If the Authority decided to mandate Indirect Access in T&T, it would follow best international practices that prefer CPS over CS or CPS/CS.</p>	
		<p>Argentina (1998)</p>	<p>CPS</p>	<p>National and international long distance</p>		
		<p>Chile (1994)</p>	<p>CPS/CS</p>	<p>National and international long distance</p>		
		<p>Colombia (2008)</p>	<p>CPS</p>	<p>National and international long distance</p>		
		<p>France</p>	<p>CPS</p>	<p>Local, national and International long distance</p>		
		<p>Mexico (1996)</p>	<p>CPS</p>	<p>National and international long distance</p>		

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		Panama (2003)	CPS	Local, national and International long distance		South Africa has also begun to implement Indirect Access for mobile
		Peru (1999)	CPS	National and international long distance		
		Venezuela	CPS	International long distance		
		United Kingdom (1994, 2000)	CS (1994), CPS (2000) CPS become the most popular	Local, Long distance		
		United States (1985)	CPS, CS	Long distance		
		It should also be noted that other Caribbean jurisdictions such as Jamaica and Barbados have attempted to introduce this policy for a number of years but to no avail.				

Section 4 – Types of Indirect Access to be considered in Trinidad & Tobago				
	Windward Telecom Ltd	Windward Telecom supports the Authority’s conclusion that Carrier Pre-Selection with Carrier Override is the most preferred method of implementation of Indirect Access, provided that this method is implemented in a phased process whereby Carrier Pre-selection, which is much easier to implement than Carrier Selection, is implemented first when ready and Carrier Selection is introduced at a later date when appropriate systems are ready.		The Authority favours a phased approach to implementation
The Authority considers that the implementation of carrier selection as the first method of Indirect Access for international calls will not be fair to the new entrants	360 communications Ltd	Three sixty strongly agrees		Noted

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<p>providing international access because the existing domestic telecommunication s concessionaires already offer international calling without having to dial extra digits</p>				
<p>Types of Indirect Access to be considered in Trinidad and Tobago Statement on the option for Indirect Access</p>	<p>CCTL</p>	<p>CCTL is surprised that the Authority is able to evaluate and make a statement on the option for Indirect Access to be implemented in Trinidad and Tobago without any consideration for what it would actually cost for the technical and administrative frameworks necessary for implementation</p>	<p>CCTL believes that before any statement is made, the Authority needs to take into consideration the costs for implementation, and assess whether the implementation of Indirect Access is indeed justified.</p>	<p>The Rationale in the Introduction of the revised draft consultative document explains the legal basis for the introduction of Indirect Access in Trinidad and Tobago However the Authority will conduct an assessment of concessionaires to determine time frame and the potential cost of</p>

					implementation.
Section 5 – Implementation of Carrier Pre-selection with override					
5.1	Dialing Options	Windward Telecom Ltd	Windward Telecom supports the Authority’s conclusion that the carrier identifying code should be outside of the called party’s number as it allows for a much easier end-user experience and one method of calling with simply an additional prefix.		Noted
5.2	Length of Carrier Selection code	Windward Telecom Ltd	Windward Telecom is generally ambivalent about whether four digit or NANPA seven digit Carrier Selection Codes are used provided that the selection of one method does not cause a delay in the implementation of Indirect Access by the dominant carriers.		The Authority has decided that it will follow the NANP recommendation of seven digits.
5.3	Services to which Indirect Access would apply “The Authority proposes to require the	360 communications Ltd	Three sixty strongly agrees. Indirect Access should in no way be limited to domestic fixed lines, as the benefits of customer choice, equal access, dial parity and fair competition must extended to the entire telecommunications sector.		Noted

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<p>implementation of Indirect Access by domestic fixed and domestic mobile telecommunication s in Trinidad and Tobago to facilitate access to all international concessionaires by subscribers.”</p>				
<p>5.3 Services to which Indirect Access would apply</p>	<p>TSTT</p>	<p>The Authority has proposed that Indirect Access services apply to both fixed line and mobile customers. TSTT considers that Indirect Access if implemented should be only for fixed international voice services. The overwhelming evidence of introduction of Indirect Access specifically in developing countries such as Trinidad and Tobago is that it has been applied in the majority of cases only to fixed long distance services.</p> <p>As is discussed in this consultation document there will be major costs to providing Indirect Access. It is crucial</p>	<p>If the Authority decided to mandate Indirect Access in T&T, TSTT considers that it should only be circumscribed to fixed voice international services.</p> <p>TSTT therefore strongly</p>	<p>The Authority disagrees with implementing Indirect Access on fixed lines only and wishes to have Indirect Access implemented in both the fixed and mobile markets.</p> <p>The Rationale in the</p>

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		<p>therefore that any assessment of whether it is appropriate to introduce Indirect Access for international telecommunications in Trinidad considers the net benefits of Indirect Access. This will require a full assessment of the relevant market, namely the international telecommunications market, to establish whether there are any market failures that need to be addressed. If there are market failures, the Authority should consider whether there are already policies or regulations in place that are addressing these failures. Only once these first two stages have been completed should the question of whether the introduction of Indirect Access could offer any incremental net benefits be considered.</p>	<p>recommends that a thorough cost benefit analysis be completed prior to the implementation of any such policy. In such a cost benefit analysis consideration should also be given to which costs should be borne by the regulator or consumer and which by the concessionaire.</p>	<p>Introduction of the revised draft consultative document explains the legal basis for the introduction of Indirect Access in Trinidad and Tobago. The Interconnection Regs (Paragraph 27) states that the concessionaires seeking interconnection must pay all modification costs of the interconnection provider. Cost issues are addressed in Section 8 of the revised draft consultative document</p>
<p>5.3 Services to which Indirect Access would apply</p>	<p>TSTT</p>	<p>In addition to these specific costs, the Authority should also take account of the impact of mandating Indirect Access on the incentives for investment in domestic infrastructure. This means that, in the event that the</p>	<p>The Authority should internalise that imposing costs on telecommunication providers, such as Indirect</p>	<p>The Authority notes that no evidence has yet been provided on the costs to establish CPS/CS.</p>

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		Authority’s analysis shows there is a net benefit to be gained from the introduction of Indirect Access, the charges for Indirect Access would have to be set at a level that would allow access providers to make a normal economic return on their network investment. If the charges are set too low, this could discourage new investment, and could also result in degradation of access infrastructure.	Access, will distract scarce resources that otherwise would be devoted to invest in increasing innovation and penetration of services within the country.	The Authority’s costing methodology will address all costs associated with Indirect Access.
5.3 Services to which Indirect Access would apply	TSTT	Given that other mobile operators are also now licensed to provide international services over their own facilities, TSTT is of the view that the Authority needs to include the supply of international telecommunications services over mobile networks as well as fixed networks in its market analysis before reaching any conclusions on the competitiveness of international telecommunications service in Trinidad and Tobago, and whether any supplier holds a position of dominance. The Authority should also factor into this analysis the impact of VoIP services in assessing the level of competition.	The issue of dominance is again raised in this consultation and how the Authority will go about assessing whether a concessionaire is dominant or not.	The issue of dominance is not relevant in the Trinidad & Tobago market as regards implementation of Indirect Access.
5.3 Services to which Indirect	TSTT	The Authority should also consider that different technologies employed by various providers may result		The concessionaires will have to adhere to QOS

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Access would apply		in quality problems and call delays which can increase the number of customer complaints.		regulations which will be published soon.
5.4 Slamming	Windward Telecom Ltd	While keeping in mind that accidental incidents of carrier pre-selection changes due to typos and data miscommunication occur, Windward Telecom supports the Authority in its condemnation of slamming. Given the small number of licenses, Windward Telecom would hope that the number of incidents of slamming is low to non-existent.	Windward Telecom and would recommend that disincentives be implemented to prevent slamming from occurring and would recommend a standardized method of a customer changing ones carrier pre-selection. Disincentives would help prevent any incidents of slamming which could give all competitive carriers a poor reputation.	Noted. The Authority agrees with a standardized method of changing carriers which the concessionaires will be requested to draft and submit to the Authority for approval prior to implementation.
5.4 Slamming	TSTT	The subscription process involved with CPS with override on a call by call basis only affects the presubscription choice of a consumer, at least as far as the practice of slamming is concerned, and not the call by call choices a consumer may make. The Authority proposes that the procedures for subscribing shall be efficient and simple. Experience in other countries, however, has shown that simple procedures are often not sufficient to prevent slamming from taking place. It has	The Authority should carefully consider how it intends to prevent slamming prior to requiring Indirect Access, as the required procedures to do so are likely to be costly, both to the Authority itself and to the operators	Noted. The Authority will address slamming in its “Consumer Rights and Obligation” policy document.

	TSTT	<p>often been necessary to implement costly verification steps in the process to assure that: (1) the person making the choice to change his or her pre-subscribed carrier is indeed the subscriber of record for that telephone number or is an authorized representative; and, (2) it is the desire of that authorized person to make a change in his or her pre-subscribed carrier. A number of questions arise when one considers how to prevent slamming from taking place. Will telemarketers operating on behalf of a long distance carrier be allowed to accept voice authorization to change pre-subscribed carriers over the telephone? Will a neutral third party be required verify that choice, as is the practice in some countries? Will written authorization be required, and if so, who must witness the signature of the consumer? Can the process be completed through the mail or must it be done in person? When slamming is found to have happened, how will billing disputes be resolved, when a consumer discovers that the calls he or she has been making thinking that they would be priced at the agreed price with one long-distance operator, have in fact been carried by a different long-distance operator at different prices? Would the Authority need to devote resources to resolving these disputes? What will the penalties be</p>		
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Framework for Implementation of Indirect Access in Trinidad and Tobago

		for those found to have been engaging in the practice of slamming?		
Slamming	CCTL	While CCTL notes that the Authority addressed the issue of Slamming in its Consumer Right and Obligations Policy, CCTL believes this matter has particular relevance here. In considering the costs of implementing Indirect Access, the Authority also needs to take into account the administrative costs of dealing with reports of slamming, which invariably occur in markets where Indirect Access is introduced.	CCTL believes greater attention and focus on the effects and impact of slamming need to be taken into consideration by the Authority.	Please see the comment above from the Authority.
	CCTL	In addition to Slamming, Indirect Access also brings a number of challenges as it relates to billing disputes, particularly where customers query their bills – who will absorb the costs where customers query they did not make the call? Who bears the costs for non-payment of bills by customers?	CCTL believes there are a number of additional issues that the Authority needs to take into account, before considering whether Indirect Access is really necessary and will be beneficial to the telecommunications industry in Trinidad and Tobago.	At this time international calls will be billed directly by the concessionaire who will deal with queries from end users. Costs for customer queries and non payment of bills are commercial issues to be dealt with by concessionaires.

Section 6 – Costing Regime				
<p>Costing Regime The Authority considers Indirect Access to be an interconnection service and therefore should be governed by the Interconnection Regulations. The costs for Indirect Access should therefore be derived in accordance with the Authority’s Costing Methodology.</p>	<p>Three Sixty Communica tions Ltd</p>	<p>Three Sixty agrees.</p>	<p>The Authority should however be cautioned that reliance on the bi-lateral negotiation process is likely to result in interconnection disputes over rates and fees akin to what has been experienced by the incumbent mobile operator and the new entrant mobile operator to date. The Authority should set forth rates and fees at the onset of the process in order to eschew unnecessary delays in implementation of carrier pre-selection with override.</p>	<p>The Authority cannot legally set rates for services. The Authority can be involved when concessionaires refer a dispute on rates. Cost models for both wholesale and retail services will be developed by the Authority.</p>
<p>Statement on system establishment costs</p>	<p>Three Sixty Communica tions Ltd</p>		<p>The methodology for the sector’s contribution to establishment costs should be</p>	<p>It has already been established in the Interconnection Regs 2006</p>

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<p><i>and per concessionaire establishment costs</i> <i>The Authority proposes to require that all telecommunications concessionaires contribute to system establishment costs in accordance with a methodology to be prescribed by the Authority and to bear their own establishment costs.</i></p>			<p>defined ASAP so that comments can be solicited.</p>	<p>that the interconnecting concessionaire will pay for the modifications to the network of the interconnection provider.</p>
	<p>Windward Telecom Ltd</p>	<p>Windward Telecom supports the Authority’s recommendation that implementation of carrier pre-selection with override incorporates cost recovery mechanisms.</p>	<p>However, the network elements should be separately costed (notably billing and collection) to ensure the most cost efficient environment for all carriers.</p>	<p>The Authority is puzzled by this comment. Billing and Collection are not normally referred to as network elements. Please clarify.</p>
<p>6.1 Carrier Pre-</p>	<p>Windward</p>	<p>Given the current equipment installed, no additional</p>		<p>The Authority will</p>

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<p>selection</p>	<p>Telecom Ltd</p>	<p>exchange equipment would be necessary to implement carrier pre-subscription as it is a standardized base feature on almost all exchange systems and all Nortel systems. A simple, one time programming of the carrier selection code into each domestic exchange switch would be all that is required to activate carrier pre-selection from a network perspective. Assuming that billing is facilitated by the competitive carriers for carrier pre-selection, modification to subscription data fields and the process for provisioning and fault-reporting would be all that is necessary to implement carrier pre-selection. The cost to activate carrier pre-selection in Canada is C\$0.7119 (Bell Canada Access Services Tariff Item 41.5.H) each time a change is made to the carrier pre-selection carrier. By having the a competitive carrier look after billing for Carrier Pre-Selection it would lower the cost to the domestic carrier in terms of both implementation and operation and would be desired by Windward Telecom and likely the domestic carriers if the cost regime was truly based on cost-recovery.</p> <p>The facilities and SS7 transiting that are required to exchange traffic, are already in place between TSTT and Windward Telecom at already established costs.</p>		<p>investigate whether the situation is as described.</p>
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		<p>It is also worth noting for the purpose of establishing the relative nature of the cost to implement Indirect Access, some of the additional costs incurred by a competitive carrier in Canada for Indirect Access:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Account Setup C\$339.79 <input type="checkbox"/> Unauthorized PIC Change (Slamming) C\$29.97 <input type="checkbox"/> Changes to CARE (Customer) Profile C\$84.95 <input type="checkbox"/> PIC Processing Charge C\$0.7119 <p>As found in Bell Canada Access Services Tariff Item 41.</p>		
<p>6.2 Carrier Selection costs</p>	<p>Windward Telecom Ltd</p>	<p>The cost to establish this would be largely the same as the carrier pre-selection plus any additional costs to implement the billing aspect if required. From the way in which the Draft Framework is written, it sounds as if the Authority believes that Carrier Selection is easier to implement which is not the case from a technical or administrative perspective.</p> <p>A noted difference between the Draft Framework and experiences in other countries is that the consumption costs are suggested to be billed on a per use basis to the end-user versus billed to, and incorporated in, a competitor’s pricing structure. This could allow for the</p>		<p>Noted. The document is being revised to the following:</p> <p>Phase1 implementation- Carrier Pre-selection</p> <p>Phase2 implementation- Carrier Selection as override to CPS.</p> <p>The Authority does not believe that Carrier Selection is easier to implement than Carrier Pre-</p>

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		<p>carrier to make them prohibitively high.</p> <p>Additionally, if the end-user is being billed directly versus the competitor, there is no strong constituent to argue for lower rates.</p>		<p>selection.</p> <p>The Sections on User Costs and Cost Recovery have been revised.</p>
6.3 Establishment costs	Windward Telecom Ltd	<p>It is in the best interests of the domestic carriers, as has been seen through their previous actions in dealing with interconnection and pricing with Windward Telecom, to delay and make the establishment costs seem as high as possible.</p> <p>Given the difficulty in accurately determining the incremental costs of establishment versus fixed operating costs, it is safe to assume that based upon the monopolies previous behaviour, they will allocate a large amount of fixed operational costs that they currently incur to establishment costs. Given the existing, relatively new equipment infrastructure currently in operation by the incumbent carriers, existing facilities in place for the exchange of traffic with competitors, and very limited administrative, technical, and operational procedural changes that would need to be made, especially in the case of carrier pre-selection, the incremental establishment costs at this point in time are very low. The Authority should also realize that competitors have significant incremental</p>		<p>Noted. The Authority will consult with concessionaires as regards establishment costs and perform an audit for verification.</p>

		<p>establishment costs to enter the market given they do not necessarily have the existing equipment infrastructure already in place.</p>		
6.3 Establishment Costs	TSTT	<p>TSTT respectfully disagrees with the Authority’s second part of its recommendation in page 25:</p> <p>“The Authority proposes to require that all telecommunication concessionaries contribute to system establishment costs in accordance with a methodology to be prescribed by the Authority and to bear their own establishment cost.”</p> <p>As recommended by the Authority, almost all the burden of Indirect Access costs would be suffered by TSTT. The role of the Authority must be to intervene in the market when a market failure occurs and the remedy should serve to promote competition in a neutral way, i.e., promote the competition process not specific competitors.</p> <p>There is a need for a more extended discussion on how</p>	<p>The recommendation of who should pay the costs of Indirect Access and how it should be apportioned among parties should come as a result of a thorough discussion on the principles that should govern these decisions.</p> <p>The Authority should establish a minimum set of principles for cost efficient and neutral cost recovery mechanisms such as</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Causation</i>, should the entity that generates a cost pay for it? <input type="checkbox"/> <i>Cost minimization</i>, there should be incentives for 	<p>Recommendation has been changed to reflect the Telecommunications Act and the Interconnection Regulations 2006. The Authority may recommend the terms of payment.</p>

<p>6.3 Establishment Costs</p>	<p>TSTT</p>	<p>the costs are going to be recovered, and the Authority in this proposed Draft Framework has failed to establish at least a minimum set of criteria to achieve a neutral competitive outcome. TSTT consider that once the costs have been determined and estimated, the following question would be who should pay for Indirect Access. The establishment of a minimum set of cost principles could help the cost attribution process and guide to whom must ultimately pay for the cost recovery.</p>	<p>all parties to minimize costs</p> <ul style="list-style-type: none"> <input type="checkbox"/> <i>Distribution of benefits</i>, should the entities that benefit from CPS/CS pay their costs? This may include all concessionaries that benefit from introducing Indirect Access, as well as customers that decide to use this service. <input type="checkbox"/> <i>Reciprocity</i>, should cost apportionment be symmetrical among operators? <input type="checkbox"/> <i>Practicality</i>, how can a particular cost apportionment methodology be certain of being workable? <input type="checkbox"/> <i>Pro competition</i>, how can any transactions or cost recovery approaches be certain of producing no adverse effects on competition (in particular, discouraging Indirect Access)? <input type="checkbox"/> <i>Efficiency</i>, how can an 	
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			outcome be achieved that creates the greatest level of efficiency in the allocation of resources?	
6.3 Establishment Costs Statement on system establishment costs and per concessionaire establishment costs	CCTL	This statement seems to be at variance with the principle under the interconnection regulations, which the Authority has chosen to introduce Indirect Access, or even the Access to Facilities regulations under which CCTL believes this really falls (see Access to Facilities Regulations Section 4(b) – (e), which says that costs for establishing interconnection, or access to facilities, shall be borne by the party requesting such interconnection or access to facility. In this regard, CCTL questions whether the Authority’s statement is in line with the regulatory framework.	CCTL recommends that the Authority re-look whether its statement on system establishment costs are consistent with the Act and relevant regulations.	Recommendation has been changed to reflect the Telecommunications Act and the Interconnection Regulations 2006. The Authority may recommend the terms of payment.
Section 7 – Methodology for implementation of Indirect Access				
Methodology for Implementation of Indirect Access	Windward Telecom Ltd	Windward Telecom is concerned that the six stage implementation schedule may prolong the implementation time frame	To expedite matters, the Authority should within a month convene a meeting with technical representatives from all concessionaires. Each	The Authority has already begun the process to determine the technical requirements of the domestic concessionaires

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			concessionaire should be required to provide in advance of this first Technical Steering Committee meeting with a technical schematic and software outline for processes with the incumbent carriers.	and the associated costs and timeframes
Methodology for Implementation of Indirect Access	Three Sixty	Determination of the proposed establishment costs of concessionaries and an audit of such proposed costs should form an integral part of implementation methodology process.		Agreed. The Authority will audit the responses to verify the technical requirements, associated costs and timeframes obtained from the incumbent concessionaires.

Appendices 2 & 3				
Appendices 2 and 3	Three Sixty	A survey of the quantum / \$ value of all costs associated with Indirect Access in various global jurisdictions which have already implemented carrier access should be an integral component of the Authority’s planning process and this should be shared with stakeholders for benchmarking purposes.		Noted.
Summary				
	CCTL	In closing, CCTL would like to categorically state that it strongly opposes the proposal by the Authority to introduce Indirect Access. From CCTL’s reading of the draft framework, not only does it seem to be based on the incorrect regulatory instrument, but it also does not take into context the actual telecommunications environment that exists in Trinidad and Tobago, where line rental of the dominant fixed line operator is capped (effectively capping the line rental of competing fixed line operators), where there are a number of options to users for making international calls, where there is absolutely no demand from the public for additional options to make international calls, where technology is providing means of Indirect Access without any	CCTL recommends that the Authority re-visit whether Indirect Access is really being demanded, or necessary, in Trinidad and Tobago, especially where the greater emphasis of Government is on universality of services and increasing broadband penetration, as the introduction of Indirect Access for international calls will actually obstruct the achievement of these objectives, for	The Rationale in the Introduction of the revised draft consultative document explains the legal basis for the introduction of Indirect Access in Trinidad and Tobago Line rentals have not been capped.

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	CCTL	<p>regulatory intervention and the associated challenges to same (slamming, billing disputes etc), and where there is a drive to increase penetration of broadband services, and universality of services in Trinidad and Tobago.</p> <p>In light of these factors, CCTL believes it is entirely inappropriate for the Authority to invest its and the operators' time on spending huge sums of money on Indirect Access, to achieve very little development of the national telecommunications sector.</p>	questionable benefit to the national telecommunications sector.	

Annex 2: Decisions on Recommendations from Second Round of Consultation

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General				
	Windward Telecom	Many concessionaires argued in the previous consultation that Indirect Access was not required facilitate competitive international calling due to domestic competition. While the Authority correctly commented that domestic competition did not equate to effective competition in the international calling market, Windward wishes to provide relative statistics that indicate the current lack of competition in the international calling market and associated high prices, has created an imbalance in the ratio of international outbound minutes from Trinidad & Tobago to inbound international minutes into Trinidad & Tobago. Given the relative GDP of Trinidad and Tobago and its industrial base, it should have a higher ratio of outbound to inbound, likely in the 52%-54% range compared with 46% at present.	Fully-liberalized markets, such as the Cayman Islands, provide consumers with lower pricing and leading edge technology. The established dominant carriers clearly want to maintain duopolies in the wireless and wireline / internet segments. At this juncture, competition in long distance communications largely benefits expatriates and not the domestic population and T&T commercial enterprises.	The Authority noted Windward Telecom's comments and will consider same in its deliberation when regulating the outbound international market.

¹¹ Regional regulatory or Governmental agencies, Existing service and/ or network provider and affiliates, Potential service and/ or network providers and affiliates, Service/ Network Provider Associations/ Clubs/ Groups, General Public

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions																								
		<table border="1" data-bbox="562 435 1073 638"> <tr> <td data-bbox="562 435 772 638">Country</td> <td data-bbox="772 435 898 638">2008 Per Capita GDP</td> <td data-bbox="898 435 1073 638">Outbound / Inbound Minutes</td> </tr> </table> <table border="1" data-bbox="562 675 1073 1114"> <tr> <td data-bbox="562 675 772 751">Cayman Islands</td> <td data-bbox="772 675 898 751">41,800</td> <td data-bbox="898 675 1073 751">93%</td> </tr> <tr> <td data-bbox="562 751 772 828">St. Kitts & Nevis</td> <td data-bbox="772 751 898 828">19,700</td> <td data-bbox="898 751 1073 828">52%</td> </tr> <tr> <td data-bbox="562 828 772 872">Barbados</td> <td data-bbox="772 828 898 872">19,300</td> <td data-bbox="898 828 1073 872">56%</td> </tr> <tr> <td data-bbox="562 872 772 948">Trinidad & Tobago</td> <td data-bbox="772 872 898 948">18,600</td> <td data-bbox="898 872 1073 948">46%</td> </tr> <tr> <td data-bbox="562 948 772 992">St. Lucia</td> <td data-bbox="772 948 898 992">11,300</td> <td data-bbox="898 948 1073 992">38%</td> </tr> <tr> <td data-bbox="562 992 772 1068">St. Vincent & Grenadines</td> <td data-bbox="772 992 898 1068">10,500</td> <td data-bbox="898 992 1073 1068">24%</td> </tr> <tr> <td data-bbox="562 1068 772 1114">Jamaica</td> <td data-bbox="772 1068 898 1114">7,400</td> <td data-bbox="898 1068 1073 1114">16%</td> </tr> </table>	Country	2008 Per Capita GDP	Outbound / Inbound Minutes	Cayman Islands	41,800	93%	St. Kitts & Nevis	19,700	52%	Barbados	19,300	56%	Trinidad & Tobago	18,600	46%	St. Lucia	11,300	38%	St. Vincent & Grenadines	10,500	24%	Jamaica	7,400	16%		
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Jamaica	7,400	16%																										
General	TSTT	TSTT is pleased to note the extensive and comprehensive comments of the other domestic concessionaires and wishes to echo its support the views expressed. We also have noted the comments of Windward Telecom but do not consider this to be the appropriate forum to address same.		The Authority notes TSTT's comments. However, the Authority wishes to direct TSTT's attention to Clause 8(b) of the interconnection regulations which																								

Document Sub-Section	Submission Made By: Stakeholder Category¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	TSTT	<p>Of concern to TSTT is the failure of the consultation to address the likely consequences to a market that has already seen a significant drop in international carrier rates. Given that returns are now marginal, clearly one outcome will be the targeting of business/high value customers by all participants to the exclusion of the other consumers. Initially price reduction will auger to the benefit of the customer, however as the market develops, both the domestic carriers and international concessionaires may find this line of business no longer viable, with the possible result of unwanted oligopolistic/ monopolistic behaviour which may include price increases and reduced quality.</p> <p>In keeping with the objects of the Act as stated in Section 3, while it is incumbent on the Authority to establish conditions for an open market for telecoms services and fair competition at national and international levels, it is submitted that a necessary component of an open market is the ability of the providers to continue to exist and operate viable businesses within that market. Of concern to TSTT is the redirection of TATT's focus from the creation of fair market conditions for the benefit of all providers and consumers to a focus that seeks to benefit one particular category of provider with the expectation that this will</p>	<p>TSTT once again strongly recommends that a full cost benefit analysis, that examines the overall sectoral impact from a social, financial and technical perspective that looks at this market in the short, medium and long term, be conducted.</p>	<p>explicitly states that concessionaires are mandated to “programme its switches or routers to enable carrier selection or pre-selection where applicable, for access to international telecommunications services”.</p> <p>This requirement is non-discriminatory and applies to all concessionaires operating a domestic network.</p> <p>The Authority agrees with TSTT that there would be a price reduction that auger to the benefit of the populace of Trinidad and Tobago. However, the Authority is of the view that it will adopt appropriate regulatory action to address the possibility of oligopolistic/monopolistic</p>

Document Sub-Section	Submission Made By: Stakeholder Category¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	TSTT	<p>ultimately redound to the benefit of consumers to a focus that seeks to provide unfair advantage to particular providers. While the intent may be to give those providers an opportunity to compete, we submit that the mechanisms proposed by TATT are likely to achieve the opposite result.</p> <p>For the avoidance of doubt, TSTT supports the promotion of competition in the telecommunications market, once it is effected for the benefit of all concessionaires equally. In this vein, TSTT stresses that the implementation of a new policy must be based on more than the passage of time; rather, a thorough analysis, including a much needed cost benefit analysis should have been conducted prior to the adoption by the Authority of a final policy position.</p> <p>In that vein, we note that the Authority, in its response referenced the Bailiwick of Guernsey as a jurisdiction that introduced Carrier Pre-Selection (CPS) without a cost/benefit analysis being done for this particular policy supra. It appears to TSTT that TATT has misrepresented Guernsey as an appropriate benchmark.</p> <p>It is to be noted that the objective of the consultation was to gauge the level of interest among existing operators and Other Licensed</p>		<p>behaviours when such behaviours arise. The Authority disagrees with TSTT's conclusion that a necessary component of an open market is the ability of providers to continue to exist. The Authority is required to provide an open market for telecommunications services, including conditions for fair competition. The Authority opines that where it is to provide such a framework, market exit remains a reality as competition will force inefficient firms to exit the market.</p> <p>The Authority is required by primary and secondary legislation to effect indirect</p>

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	TSTT	<p>Operators (OLO's) with respect to the inclusion of CPS. The consultation intentionally did not quantify any specific cost analysis since that would have been dependent on whatever preferred solution was settled upon. It was felt that given the small size of Guernsey it was critical to determine the demand for the service before seeking to determine a solution for implementing same.</p> <p>It is to be noted that to date, a decision has not been taken in Guernsey on the need to implement CPS. As such a cost/ benefit analysis is yet to be done. The following link is submitted for ease of reference. http://www.regutil.gg/docs/OUR0504.pdf.</p> <p>Indeed if Guernsey is to be used as a benchmark at all, TSTT would readily endorse it for the approach taken for the consideration of CPS by the entire sector before a decision is taken at the level of the Regulatory. .</p>		<p>access. In accomplishing this mandate, the Authority is of the view that a cost/benefit analysis is not a necessary precondition for the implementation of said strategy. The Authority is of the view that indirect access will redound to the benefit of society, individual members of the public and concessionaires. The Authority will nonetheless monitor the market to ascertain anticompetitive practices which may impinge upon competition.</p> <p>The Authority disagrees with the conditions listed here for implementation of this framework. The Authority points concessionaires to the Telecommunications Act</p>

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	TSTT			<p>2001 which requires that no concessionaire be disadvantaged in exercising the rights of his concession.</p> <p>The Authority wishes to clarify for TSTT that the Bailiwick of Guernsey introduced Carrier Selection (not carrier pre-selection as stated by TSTT in its response) without conducting a cost benefit analysis.</p> <p>The Authority further clarifies its use of the example of the Bailiwick of Guernsey. This example was used to negate a previous submission which sought to articulate an argument for the delay in indirect access due to the infancy of liberalization in Trinidad and Tobago market. For the avoidance</p>

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	TSTT			of doubt the Bailiwick of Guernsey introduced Indirect Access three years after liberalization of its telecommunications market.
General	Digicel	In its comments on pages 38 (and again on page 43) TATT is implicitly claiming that there is a separate relevant market for international call origination on each domestic network – including on each mobile network. This is demonstrably incorrect. ¹² TATT has not provided any detail of the ‘thought experiment’ known as the SSNIP test which is the internationally accepted means by which markets are defined. Indeed it would appear by the results TATT obtained that it has not actually attempted to define the market according to this internationally accepted methodology. ^{13 14}	Digicel urges TATT to obtain expert advice about market definitions and the related market analysis used to identify whether dominance exists in a defined market.	The Authority is not in disagreement with Dr Doyle’s presentation as cited by Digicel. However, the Authority notes that Dr. Doyle conditioned his statements by the use of the word “generally”. As such Dr. Doyle recognizes that there are or may be exceptions to his statements.

¹² “Despite there being many facilities for outgoing international calls, each one is currently tied to a domestic network”: p.38 of the Consultation document, Draft Framework for Implementation of Indirect Access in Trinidad and Tobago. This represents a view that the effectiveness of competition can be defined around networks. This is an economically naïve theory that is disproven by a proper market definition based on demand and supply substitution analysis. In slide 14 of Dr Doyle’s presentation he says, “Retail markets should in principle be examined, for market definition purposes, in a way that is independent of the network or infrastructure being used to provide services, as well as in accordance with the principles of competition law”. See in particular the section of his presentation, “Case study Market Definition: Mobile access and call origination” See Market Analysis –tools and cases. “Training on Competition and Changing Market Conditions: Impact on ICT Regulation”, Addis Ababa, 6th–9thNovember, 2007, By Dr Chris Doyle, Warwick Business School & Consultant World Bank. <http://www.infodev.org/en/Publication.372.html>

¹³ In some cases a thought experiment backed up with certain evidence will not provide a clear answer as to the proper market definition. A range of empirical methods can then be used.

Document Sub-Section	Submission Made By: Stakeholder Category ¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	Digicel	<p>The SSNIP provides very similar product market definitions from one jurisdiction to another. This should be of no surprise because in the telecommunications industry, the products being sold in different jurisdictions are very similar.</p> <p>Thus, in 2003 in the EU it was considered that the relevant product market in all Member States was the same, and indeed this same definition was recommended to all attendees at an international ITU/World Bank ICT meeting in 2007 by internationally renowned expert Dr. Chris Doyle:</p> <ul style="list-style-type: none"> • “The relevant wholesale market appears in general to be <u>access and call origination on mobile networks</u>”¹⁵ <p>and 2 bullet points lower,</p> <ul style="list-style-type: none"> • “the level of competition generally observed in this market at the retail level indicates that ex-ante regulatory intervention at a wholesale level may not be warranted”¹⁶ 		<p>This notwithstanding, the Authority wishes to advise Digicel that its initial comments on this matter was in response to the following submission from CCTL:</p> <p>1) “There is rampant competition in the market for international calls, with little dominance demonstrated by any one party in the international call market</p> <p>2) There are new entrants into the telecommunications market that are providing further options to customers to complete international</p>

¹⁴ Digicel outlined in its response on the Pricing Framework, in the section on identification of markets, that TATT’s list of so called ‘markets’ is both inconsistent with the economic reality of the telecommunications sector in T&T and with the markets properly identified in any other jurisdiction.

¹⁵ See also pages 30 of, COMMISSION RECOMMENDATION: “On Relevant Product and Service Markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communication networks and services.”

¹⁶ *Op cit* Dr Chris Doyle, slide 17.

¹⁷ This definition is expected to change shortly as demand, technology conditions have changed and continue to change and competition is now better established. SSNIP tests suggest that markets have merged; there will, for example, no longer be markets for “International residential telephone services from a landline” and “Access and call origination on mobile networks”.

Document Sub-Section	Submission Made By: Stakeholder Category¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	Digicel	<p>Today, access and call origination on mobile networks is the product market definition in the EU and many other countries. It includes all outgoing calls from mobiles and for all mobile networks.¹⁷ It is highly improbable that a rigorous analysis of the situation in T&T would come up with a definition that was significantly different to this one.</p> <p>If dominance by any player in the market is not shown by TATT, there is no basis for the imposition of a remedy such as CPS. Mandated access by our competitors would be contrary to internationally accepted economic theory and the public interest. TATT's opinion about what it thinks is in the interest of consumers appears to be completely unsupported by proper analysis.</p>		<p>calls”.</p> <p>The Authority disagrees with CCTL statements given that by definition the international outbound market segment exhibits monopolistic features (you can only originate a call on the network to which the calling party subscribes). Currently end users of one domestic concessionaire cannot ‘access’ another international carrier to convey their international calls other than that of the concessionaire to whom they are a subscriber. In the Authority’s view Indirect Access will provide the end user with the ability to choose the international carrier, thereby stimulating competition on outgoing international calls.</p> <p>Pertaining specifically to the issue of dominance, the</p>

Document Sub-Section	Submission Made By: Stakeholder Category¹¹	Comments Received	Recommendations Made	TATT's Responses and Decisions
General	Digicel			Authority is of the opinion that it does not need to prove dominance to introduce Indirect Access. The Act clearly adopts a non-discriminatory position on the applicability of Indirect Access to all concessionaires. The Authority is therefore guided by the Act and regulations made thereto.
Section 1 - Introduction				
1.1 Rationale	Digicel	<p>TATT cites the statutory objects of open markets and promotion of access to telecommunications services as the driving force behind the implementation of indirect access.</p> <p>In Digicel's view, following through with indirect access will not change anything in the international outgoing markets save for a short term influx of competitors who will be forced to exit prematurely</p>	<p>TATT will not achieve any further sustained opening of the market nor availability of services for international outgoing calls from the implementation of direct access and therefore should not expend time and resources on furthering this policy.</p> <p>Even if TATT disagrees, before it seeks to interfere with the free market forces TATT must as rightly</p>	<p>The Authority is not in agreement with Digicel's comments. The available information to the Authority shows a responsiveness of outbound calls to price reduction. The Authority is of the view that this responsiveness may increase where Indirect access is implemented.</p>

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1.1 Rationale	Digicel	<p>as:</p> <p>1/ the prices are already the lowest in the Caribbean and just above origination cost plus international settlement rates. What little margin might be obtainable would be quickly wiped out by fair competition in the market causing the departure of the new entrant;</p> <p>2/ the new entrants would not be able to obtain the strong bargaining position and well established relationships that the existing concessionaires providing international outgoing services have vis-à-vis international carriers. In addition, the economies of scale arising from the fibre capacity and other costs shared amongst affiliated companies of the existing concessionaires would not be attainable by the new entrant. Hence the two major cost drivers would not be contained by the new entrant in what is already a competitive market with even narrower margins for the new entrant who has to pay origination costs in the absence of a domestic network to reach the competitor's end users.</p> <p>Moreover, the public interest is served by having existing concessionaires negotiate with carriers whose the quality of service they are familiar.</p> <p>The current situation of carriers dealing with</p>	<p>recommended by TSTT specifically carry out a study that will show to the existing concessionaires that</p> <p>1/ a market failure does exist for outgoing international calls;</p> <p>2/ that such failure will be addressed by the implementation of this policy; and</p> <p>3/ a cost benefit analysis would yield a beneficial outcome for the public.</p> <p>Digicel's believes that it is unreasonable and in fact contrary to the objectives of the Act to implement a policy that may cause saturation of a market, entice competitors in, only to have them exit shortly thereafter or to intervene in a market where no assessment of dominance or finding of abuse of same has been made.</p>	<p>The Authority is not in agreement with Digicel's recommendation that there is a need to show market failure. The Authority is required to remove barriers to entry. As it currently stands, there are international concessionaires who are entitled to but unable to enter the outbound market segment. This in the Authority's view may be construed as a market failure.</p> <p>This notwithstanding, the Authority reminds Digicel and all other concessionaires that the Telecommunications Act did not make market failure or a cost benefit analysis pre requirements for the implementation of indirect access.</p> <p>In the Authority's opinion</p>

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1.1 Rationale	Digicel	existing concessionaires with large outgoing traffic numbers already achieves an optimal price and quality of service for end users.	<p>To implement this policy would mean that a regulator will be intervening in the market with no express powers so to do in the circumstances and to exercise its general supervisory role prematurely as no investigation, far less yet finding, has been made to suggest that one or more parties are dominant and not acting anti-competitively or otherwise in a manner contrary to the public interest.</p> <p>Where there was a market failure the more modern and reasonable approach is for the regulator to first raise the issue of the market failure with the concessionaires to discuss whether it can be rectified without the need for regulatory intervention.</p>	<p>Digicel's recommendation pre-judges the outcome of competition in the outbound market segment. The Authority is sure that Digicel would disagree with its own recommendations if said was applied to it prior to its entry in the mobile market.</p> <p>The Authority disagrees with Digicel. The Authority opines that the Telecommunications Act 2001 as well as the Telecommunications (Interconnection) Regulations, 2006 Part 2 clause 8 provides it with the necessary legal powers to intervene and implement Indirect Access.</p> <p>In the Authority's view market dominance or acts of anticompetitive behaviours are not a requirement for the</p>

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1.1 Rationale	Digicel		<p>In any event, the current market conditions involve fierce competition for the retention of end users of mobile telecommunications. The price of international calls and the quality of service are obvious and significant considerations for the provider's customer retention strategy. As a result, even though the end user may not have a choice of providers for international calls the strong risk of mobile customers moving to competitors (particularly in light of the vast majority of subscribers being prepaid) is sufficient to keep prices at competitive levels and quality of service at acceptable levels, without the implementation of indirect access.</p>	<p>Authority's intervention and the implementation of Indirect Access. The Authority recognizes that there is a degree of competition in the international outbound market segment. However, the Authority is of the view that this level of competition can be deepened with Indirect Access given that end users would have the ability to choose, as prices are adjusted downwards, which international carrier they will use to complete their international calls. The Authority's information suggests the existence of multiple phones by subscribers. This in the Authority's opinion translates into subscribers owning multiple phones to access the benefits of prices offered by existing</p>

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1.1 Rationale	Digicel			domestic facilities based concessionaires. The Authority prefers that all subscribers have the choice of accessing the services offering of any and all international concessionaires without the added costs of owning additional and/or multiple phones.
1.2 Objectives	TSTT	<p>TSTT notes the modifications made to the document but is extremely disappointed that the fundamental issues surrounding the implementation of CPS have not been fully addressed. While it may be incumbent upon the Authority to be guided by the Act, it cannot be that a requirement to implement certain measures must be imposed irrespective of the potential harm</p> <p>Up to this point TATT has failed to produce any form of analysis that could reasonably influence sector participants to favour the method recommended by the Authority as the 'best' choice for this sector. In the absence of any such analysis TSTT reiterates its former position i.e. the Authority appears to have already made a decision to</p>	<p>In future consultations for the introduction of competition enhancement measures, TSTT requests a greater role in the decision making process for stakeholders, as per the Guernsey model.</p> <p>With respect to this consultation, and in keeping with the proposals in this second round consultative document, TSTT looks forward to a detailed outline</p>	<p>The Authority is in agreement with TSTT that all Concessionaires should be similarly situated in the market place. This, in the Authority's opinion is exactly what Indirect access would accomplish. Thus, Indirect Access allows international concessionaires to access the outbound market (similarly situated) to which they have an authorization from the</p>

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1.2 Objectives	TSTT	<p>introduce Carrier Pre-Selection without the benefit of a complete analysis or discourse. TSTT respectfully submits that the Authority has not satisfactorily answered TSTT's questions posed in the initial consultation, with respect to the market failure that Indirect Access is purporting to remedy and the number of customers that may avail themselves to the service.</p> <p>TSTT believes that all Concessionaires should be similarly situated in the market place before Indirect Access is implemented. There is no symmetry in the market place at this time, since Windward and 360, by virtue of their business models, are not at risk of losing customers through churn; instead they can only derive benefits from the imposition of this model to the detriment of those other carriers with different business models. Indirect Access should at the very least be considered for operators that are similarly situated for fairness. In the absence of that, TATT's approach whereby it proposes to adopt Carrier Pre-Selection in the initial phase followed by Carrier Pre-Selection with override, is flawed.</p> <p>Finally, the Authority appears to be dismissive of the cost implications to providers in f introducing Indirect Access in Trinidad and Tobago, particularly if the likely take up of the service is</p>	<p>inclusive of timeframes and milestones for the proposed implementation of indirect access. Again TSTT wishes to reiterate its position on the need for a thorough cost benefit analysis on Indirect Access, inclusive of the market failure that is remedied and the scale of demand for Indirect Access.</p>	<p>Authority to so do.</p> <p>The Authority reiterates its position that a cost/benefit analysis is not a pre-requirement for implementing Indirect Access. However, the Authority reminds all concessionaires that have adopted an approach where it sought to obtain from concessionaires of domestic networks, costs as per the implementation of Indirect Access. This process is still ongoing as many concessionaires are still yet to submit quotations on the cost implications for modification of the various networks.</p>

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		minimal?		
1.3 Regulatory Framework	Digicel	<p>Digicel concurs with the views expressed by TSTT and CCTL that TATT has misconstrued sections 3 and 25(1) as well as r. 3 of the Interconnection Regulations as imposing obligations on TATT to implement direct access.</p> <p>TATT's underlying obligation under these provisions is the creation of an open market at the international level. This translates into a market environment where prices are at costs plus a reasonable rate of return for services provided by an appropriate number of competitors that can sustain such prices for the benefit of consumers, all the while delivering an acceptable quality of service.</p> <p>In addition, the broad tenor of the Act and current regulatory practice is to permit the market forces to work and leave regulatory intervention for circumstances where proven market failures have arisen.</p> <p>TATT cannot deny that there is an open market for the telecommunications services at the international level given (i) the number of international concessionaires and (ii) a simple comparison of</p>	<p>TATT needs to reassess its interpretation of those statutory provisions and regulations in light of the current regulatory practices.</p> <p>TATT, though well intentioned, seems to be applying a strained interpretation to these provisions and overreaching in the process to address a misperceived economic failure, the existence of which has not been confirmed by any independent analysis or price comparison.</p> <p>The words of the statute and regulation are very general and in no way make specific reference to any obligation of TATT to implement indirect access. Moreover the mere reference to "indirect" was</p>	<p>Whilst the Authority recognizes that its obligations under the relevant regulatory provisions might be interpreted in different ways, it cannot be argued that these provisions do not give the Authority the right and power to implement Indirect Access if it chooses to do so for all the reasons given in the draft Framework document. Further, the Authority considers that regulation 8 of the Telecommunications (Interconnection) Regulations 2006, is sufficient regulatory justification for the imposition of Indirect Access.</p>

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1.3 Regulatory Framework	Digicel	<p>international calling rates will reveal that Trinidad and Tobago has the lowest rates to several destinations across the Caribbean.</p> <p>If the international concessionaires have failed to access the market for outgoing calls then those parties may have made a commercial decision on the viability of offering those services to the public that must be accepted by the Authority, unless there is some proof of abuse of dominance that would require regulatory intervention.</p> <p>Even if you follow TATT's approach to its logical conclusion, if there was an issue of indirect access to Digicel's users and this was overcome by the current policy, then the only way that the market could be further opened and additional access to telecommunications services promoted is by the international concessionaires building and implementing a successful business model for outgoing international calls. That model would take into account the origination costs and/or administrative costs associated with this line of business and would have to offer retail rates more affordable and competitive than existing major international concessionaires to achieve any sustained prices decreases or more choice for end users.</p>	<p>not intended to be used to facilitate a direct link between one concessionaire's network and another network's end user, but rather to achieve interconnection through a third party's network or service where the direct link did not exist. In any event, no international concessionaire is being denied access to other's end users. If the competing international concessionaire wishes to access the end user then that will happen if it makes a commercially viable proposal to the domestic provider. If that cannot be done at this time, it is unlikely that this will be done even with indirect access when the associated origination and other costs are taken into account.</p>	<p>The Authority agrees that current regulatory practice is to permit market forces to operate in the various market segments. It is precisely this modus operandi that the Authority has adopted. Thus, by implementing Indirect Access, the Authority is ensuring that there is competition in the outbound market segment to impact upon price and quality of service offerings.</p> <p>The Authority is of the view that holders of international concessions are entitled to operate in both the inbound and outbound market segment. The Authority's role is to facilitate this requirement which is attainable through Indirect Access.</p>

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1.3 Regulatory Framework	Digicel	To reiterate, the outgoing rates from Trinidad and Tobago are the lowest regionally and a new entrant would be hard-pressed to price lower given their significantly weaker bargaining position with carriers who already have established relationships with the current international concessionaires providing outgoing international services.		While the Authority recognizes that a certain degree of competition exists in the outbound market, the Authority is not totally convinced that the supposedly low outbound rates are reflected in the price offered to the public of Trinidad and Tobago.

Section 3- Types of Indirect Access

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3.4 Country Experiences	Digicel	<p>TATT has also stated that the issue of dominance does not arise in Trinidad and Tobago.¹⁸ This implies that firms can have regulatory remedies imposed on them when they are not dominant. This is in direct contravention of accepted regulatory and economic theory.</p> <p>There is no legitimacy in imposing regulation where there is no market failure, since this would be contrary to the public interest and would adversely affect the interests of telecommunications end-users in the long run.</p> <p>The consequences of regulation in such circumstances are:</p> <ul style="list-style-type: none"> • Increased sector specific risk • Increased country specific risk • Higher cost of capital • Lower level of equilibrium investment • Lower level of GDP compared to a situation where sound regulation is practised. 	Digicel urges TATT to obtain expert consultancy or academic advice about the importance of market power in legitimising regulatory remedies.	<p>The Authority notes Digicel's citation by Cave et al. However, the Authority notes that said statement is most applicable to the mobile market and not to that of the international market. In the Authority's opinion implementation of Indirect Access should not impinge upon the expansion of mobile voice or broadband services.</p> <p>The Authority wishes to clearly differentiate between market structure and market behaviour. Currently, the international market is characterized by a number of</p>

¹⁸ "The issue of dominance does not arise in Trinidad & Tobago for the implementation of Indirect Access", Draft Framework for Implementation of Indirect Access in Trinidad and Tobago. p.65.

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3.4 Country Experiences	Digicel	<p>In a report by professor Martin Cave¹⁹, Matthew Corkery and Julian Tice of the Warwick Business School, the authors state:</p>		<p>concessionaires who are able to impact price and service quality and offering. However, certain concessionaires are unable to access a part of that part of that market. It is in the Authority's mandate to ensure that market structure is adequately addressed to ensure such access. This the Authority shall duly accomplish through the implementation of Indirect access.</p>
3.4 Country Experiences	Digicel	<p>“In this paper, we draw on the lessons of mobile development in richer countries to reach conclusions about how they should be regulated elsewhere – in the interests of their customers and of the economies which they serve. We do not ignore the differences between developed and developing countries in penetration rates, GDP per capita, the availability of capital and so on, but we argue that one consideration is common to all countries: mobile communications is a sector which is potentially vibrantly competitive, even if it made up of a comparatively small number of firms. If governments ignore this potential and overregulate the sector, they can put back the spread of mobile voice and broadband for many years, and do considerable harm to their economies. This risk has been present in developed countries, and some have succumbed to it by excessive regulation which has raised costs, stifle innovation, limited competition</p>		<p>For the avoidance of doubt, the Authority's position is that Open market as referred to in Section 3(a) of the Telecommunications Act 2001 has not been fully attained and requires</p>

¹⁹ Professor Martin Cave is one of the World's leading regulatory experts. He is a former Special Adviser to Ofcom (UK telecommunications regulator) and a Member of the UK Mergers and Monopolies Commission.

²⁰ Martin Cave, Matthew Corkery, Julian Tice, (2007), "Competition and the Mobile Sector – in Developed and Developing Countries", A report for the GSMA. http://www.gsmworld.com/documents/Competiton_Report_FINAL.pdf

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3.4 Country Experiences	Digicel	<p>and harmed consumer welfare.”</p> <p>and later in that document:</p> <p>“Behavioural regulation normally takes place within a legislative framework which sets out its scope in terms of general principles which apply to both fixed and mobile telecommunications. This is in itself potentially a problem because regulators are inclined to assume – mistakenly – that the problems of regulating fixed are similar in magnitude to those of regulating mobile, whereas mobile markets are inherently more competitive than fixed ones. This problem can be alleviated to some extent by having a framework which requires an affirmative demonstration of a market failure for regulation to be legally permissible.”²⁰</p>		<p>regulatory intervention by the imposition of Indirect Access. Further the Authority is of the view that the implementation of Indirect Access does not necessitate the determination of dominance or any other representation of market failure for its implementation.</p> <p>The Authority notes the comment on the applicability of Indirect Access to mobile networks. The Authority wishes to remind Digicel and other concessionaires that the Telecommunications Act 2001 adopts a non-discriminatory approach to Indirect Access. Thus, Indirect Access is applicable to both fixed and mobile concessionaires</p>

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<p>3.4 Country Experiences</p> <p>3.4 Country Experiences</p>	<p>Digicel</p> <p>Digicel</p>	<p>TATT has cited Mauritius and South Africa as examples of countries that have or are presently imposing indirect access on mobile network operators (MNOs). Interestingly enough, these countries were not referred to by TATT in its original consultation document, but were only referred to in its DOR Matrix. These references are unsupported by any analysis or study showing the suitability of benchmarking against the regulatory practices of these countries.</p> <p>TATT has stated that “South Africa has also begun to implement Indirect Access for mobile”. However, Digicel wishes to point out that indirect access has not yet been implemented in South Africa and that the Carrier Pre-Selection Regulations are still in draft form. In fact, oral submissions on these draft Regulations were only completed a few months ago.</p> <p>Also, Digicel wishes to point out that ICASA, the South African regulator does not propose the absolute imposition of indirect access on MNO’s. Indirect Access will be implemented in phases in South Africa: Phase 1 will involve Carrier</p>	<p>The fact that seemingly only one country in the world has implemented CPS on MNO’s seems to illustrate that fixed markets are treated differently from mobile markets in terms of indirect access. This would follow logically given the divergent states of competition in the fixed and mobile markets. The fixed line market is still dominated by the incumbent while the mobile market is fiercely competitive as evidenced by the reduction in prices as well as the improved coverage since liberalisation. There is hence less need for regulatory intervention as the end users in the mobile market can easily substitute their provider and therefore take</p>	<p>The Authority used South Africa to illustrate its point that other jurisdictions are like minded and are considering applying Indirect Access to mobile and fixed providers. However, the Authority wishes to remind concessionaires that in the Trinidad and Tobago jurisdiction the Telecommunications Act 2001 governs the applicability of Indirect Access. As such, indirect Access is non-discriminatory and applicable to the fixed and mobile facility based concessionaires.</p>

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3.4 Country Experiences	Digicel	<p>Selection for fixed and mobile operators and Phase 2 will involve Carrier Pre-Selection for fixed operators only. As per Section 4.1 of Annexure A - Explanation of the Carrier Pre-Selection Regulations of the Independent Communications Authority of South Africa (ICASA) at page 29:</p> <ul style="list-style-type: none"> • <i>Mobile operators will be excluded from the requirement to support CPS Phase 2 for a period of at least two years. The reason is that demand is uncertain and the costs of implementation are likely to be high. CPS Phase 2 was not required of mobile operators under the previous regulations. During the next two years ICASA will review the demand for CPS Phase 1 from mobile subscribers and will also observe to what extent further competition develops in the mobile market for example through the introduction of MVNOs and will then assess whether or not this exclusion should be lifted.</i> <p>This document can be downloaded at: http://www.ellipsis.co.za/?tag=icasa</p> <p>(File Name: <u>Draft CPS Regulations with explanatory notes and memorandum</u>)</p>	<p>advantage of international rates from competitors. Fixed line end users are less able to switch providers and as a practical matter are less inclined so to do even where dissatisfied with prices or quality of service. This is why where indirect access has been proposed, it is usually limited to fixed line and not extended to mobile markets.</p> <p>Digicel urges TATT to conduct a proper analysis of whether there is need for regulatory intervention in the form of indirect access is needed in the mobile</p>	<p>The Authority directs Digicel to its comment above</p>

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3.4 Country Experiences	TSTT	The Authority is once again making reference to arbitrary territories to support its claims. Where the view of the Authority is not supported in Europe, reference was made to other jurisdictions (South Africa). So market definitions are based on EU recommendations and other policies are based on other jurisdictions that share the view of the Authority.	TSTT asks that a measure of consistency and applicability should be exercised when referencing other jurisdictions	
3.4 Country Experiences	TSTT	The Authority must begin to apply a consistency in its approach to utilizing benchmarks. We note that further that the Authority uses the experiences of other jurisdictions when such experiences conform to the Authority's objectives, whilst ignoring any serious consideration of benchmarks that may indicate a result contrary to the one it desires. Adopting a benchmark wholesale based on the Authority's desired outcome, whilst failing to determine the specific needs of the Trinidad and Tobago market is extremely dangerous and may even lead to the result it is seeking to avoid.	Some consistency is required in the utilisation of benchmarks	The Authority directs TSTT to its comment above
Section 4 – Types of Indirect Access to be considered in Trinidad and Tobago				
4.0	TSTT	On pg 16 of the consultative document the TATT concludes, after a fairly exhaustive argument that "Carrier Pre-Selection with the override facility option satisfies the requirement of the Act for equal	If the recommended approach is as set out on page 19 of the policy document, then it is	The Authority did not reverse its position by proposing a phased implementation. It

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4.0	TSTT	<p>access and dialing parity.” However, on pg 19 the Authority reverses its position by proposing a phased implementation, “as the market develops”, without any justification for this adjustment to its earlier stated position. It is clear in the document that TATT considers that the greater benefit to the sector will be derived from the introduction of Carrier Pre Selection with override. The fact it concludes that the least preferred method (in terms of the benefit to the sector as a whole) will be implemented initially supports TSTT’s contention that a policy for Indirect Access is being advanced in support of certain players and not necessarily for the benefit of the sector as a whole. Fair competition within a sector is not advanced by addressing the needs of a minority, particularly when their overall contribution to the success or failure of that sector is questionable.</p>	<p>incumbent upon the Authority to provide reasons therefore; particularly in light of the arguments that the Authority itself put forward in support of a different solution, as set out in page 16 of the document.</p>	<p>recognizes that the time to implement Carrier Pre-selection is shorter due to billing and operational arrangements which need to be put in place for the over ride feature to be operational. The phased approach is being proposed to assist concessionaires in implementing Indirect Access in their networks in the shortest possible time. Carrier Pre-selection will be implemented in the first phase and then followed by the over ride facility.</p>
Section 5 – Billing				
	TSTT	<p>TSTT is not averse to the concept of each concessionaire directly billing its customers.</p> <p>However the suggestion that each concessionaire bill its own customers would likely increase the barriers to entry since new entrants will be required to build out and maintain costly billing systems.</p>	<p>Abandon phased approach and adopt Carrier Pre-selection with override</p>	<p>The Authority notes TSTT’s concern. However, the Authority has not received any objections from other concessionaires, with respect to the cost of implementing their own</p>

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	TSTT	<p>TSTT view this as an unnecessary duplication of resources and waste of capacity.</p> <p>The phased approach proposed by TATT will result in significant investment requirements by new entrants for billing systems and other equipment that would be required to implement each separate phase, which increases the total cost of implementing indirect access without any apparent resulting benefit. The Authority will find itself putting the needs of a minority group ahead of the overall benefits to be enjoyed by the sector as a whole. In the interest of the entire market, TSTT recommends that greater benefit is to be derived by all stakeholders by the immediate adoption of Carrier Pre-Selection with override.</p>		<p>billing systems. In fact, all concessionaires who may be required to perform their own billing, have indicated their willingness to do so. This reinforces the Authority's view that this option will enable the quickest implementation of IA in T&T.</p> <p>Additionally, it is the Authority's view that the approach of allowing one concessionaire to bill on behalf of another concessionaire may delay the initial implementation of Indirect Access in Trinidad and Tobago.</p>
Section 8- Costing Regime				
8.1 Carrier Pre-Selection costs (CPS)	Windward Telecom	As previously noted by Windward, it is in the domestic concessionaires' best interests to make the carrier pre-selection costs seem as high as possible in order to impede competition and to generate maximum revenue once implemented. In order to facilitate CPS, the Windward will comment on the following outlined costs:	Ensure that the costs incurred by the domestic carriers are the true costs and only necessary costs to implement CPS while keeping in mind that the incentive for the domestic carriers is to inflate	The Authority is in the process of verifying costs submitted with respect to the implementation of Indirect Access. Timeframes will also be verified and monitored for

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8.1 Carrier Pre-Selection costs (CPS)	Windward Telecom	<p>Software upgrade to exchange equipment – the existing exchange equipment that is currently installed by TSTT facilitates both CPS and CS as part of its base functionality.</p> <p>Installation of additional exchange equipment – no additional exchange equipment will be required at all to facilitate CPS or CS. The advancements in switching technology have negated the need for additional equipment. The simply enabling of features is all that is required.</p> <p>Modification of subscriber data field – the data within the field rather than the data field itself is all that is required. TSTT's implementation of its own long distance plans, Talk N' Save, Overseas Night Saver, and Local Saver, required the establishment of the subscriber data field to accommodate these different plans.</p> <p>Modification of billing systems – a very minor addition of a new billing plan entitled CPS, which acts exactly the same as one of TSTT's other long distance plans, is all that is required. The new plan would simply rate calls at \$0.00.</p> <p>Upgrading of customer care systems – little upgrade would be required other than to establish if the customer is a CPS subscriber or not as the domestic service of that customer would not be</p>	<p>costs and propose a cost structure that goes well beyond the base requirements for CPS.</p> <p>Ensure that the timeframe to implement the solution to enable Indirect Access is reflective of the actual time required to make the minor modifications to existing systems and to prevent delay for competitive purposes.</p>	<p>adherence to deadlines.</p> <p>The Authority notes Windward's comments.</p> <p>Noted</p>

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8.1 Carrier Pre-Selection costs (CPS)	Windward Telecom	<p>impacted or changed due to CPS and the care of the CPS is maintained by the international concessionaire.</p> <p>Upgrading of fault reporting and prepaid systems – These systems are required however the implementation of them is simply an increase in the scope of the existing systems already in place.</p> <p>When a customer makes an international call, TSTT rates the call according to the subscribers plan and sends it to one of its international suppliers. The implementation of CPS will look remarkably similar as TSTT will handle the origination of the call, rate the call as 0.00 and send it to the international concessionaire instead of its international supplier.</p>		
8.2 “Override Feature” (Carrier Selection) costs	Windward Telecom	<p>In order to facilitate CSS, the Windward will comment on the following outlined costs:</p> <p>Initial Programming of routing tables – given the network design and single point of interconnection between the domestic and international concessionaire, little programming is required. Unlike other jurisdictions, Indirect Access will not facilitate domestic long distance calling, only international calling. In instances of international calling, all calls traverse the domestic carrier</p>	<p>Create guidelines surrounding the appropriate handling of customer inquiries by a domestic carrier for Indirect Access calls using a third party concessionaire.</p> <p>Ensure that the costs incurred by the domestic carriers are the true costs and only</p>	<p>The Authority shall request that the domestic and international concessionaires form a team to develop the procedures for customers requesting service as well as customer complaints. Reasonable time frames for the conclusion of these meetings shall be mutually</p>

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8.2 "Override Feature" (Carrier Selection) costs	Windward Telecom	<p>network to a single point, the international gateway. This is also the point of interconnection with the international concessionaire.</p> <p>Upgrade of software no exchanges – the existing domestic and international exchange equipment that is currently installed by TSTT facilitates both CPS and CS as part of its base functionality.</p> <p>Upgrade of hardware on exchanges – no additional exchange equipment will be required at all to facilitate CPS or CS. The advancements in switching technology have negated the need for additional equipment. The simply enabling of features is all that is required.</p> <p>Updating end user data field – The requirement for this field is to indicate whether the customer is a prepaid or postpaid subscriber. The determination of this is required to enable the domestic carrier to decide how to handle each customer's CS calls. Given the preponderance of existing calling programs offered by TSTT and Flow, minor modifications to the end user data base format are required to accommodate other carriers.</p> <p>Customer care – the domestic carriers will have to train the appropriate staff to be able to handle customer inquiries. Windward is of the opinion</p>	<p>necessary costs to implement CS while keeping in mind that the incentive for the domestic carriers is to inflate costs and propose a cost structure that goes well beyond the base requirements for CS.</p> <p>Ensure that the timeframe to implement the solution to enable Indirect Access is reflective of the actual time required to make the minor modifications to existing systems and to prevent delay for competitive purposes.</p>	<p>agreed upon by the concessionaires and the Authority. These procedures shall require the approval of the Authority prior to their being put into use.</p> <p>Noted.</p> <p>Noted.</p>

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8.2 "Override Feature" (Carrier Selection) costs	Windward Telecom	that the cost associated with personnel training should not be a responsibility of the international concessionaire but a requirement of Authority guidelines surrounding the handling of customer inquiries for third party calls.		Noted
8.3 Establishment costs	Windward Telecom	<p>As noted in previous consultation, the functionality of the domestic carriers current network, switching hardware and software, particularly that of TSTT, is enabled to handle Indirect Access as part of its base functionality.</p> <p>Windward Telecom also wishes to note that Windward, along with other new concessionaires have already incurred significant cost in the purchase of a Nortel Succession Gateway platform that TSTT has deployed for its own provisioning of international and domestic long distance services.</p> <p>While the determination of costs incurred by the domestic concessionaires will be known prior to the implementation of Indirect Access, the inevitable delays that the international concessionaires will face due to the domestic concessionaires during the implementation phase of Indirect Access will cause the international concessionaires to incur great cost.</p>	<p>Determine the new incremental costs to establish CPS and CS at a level that simply allows for CPS and CS. As TSTT already takes advantage of most of the features that allows CPS and CS, Windward foresees negligible incremental costs.</p> <p>As hardware and software pricing structures in telecommunications are often port or volume dependent, only the incremental cost for the capacity that each international concessionaire will use should be equated into incurred cost to enable Indirect Access.</p>	<p>Noted</p> <p>Noted</p>

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8.3 Establishment costs	Windward Telecom	<p>These are fixed network facilities costs, purchased from one of the domestic carriers no less, for capacity to handle the transmission of Indirect Access calls from the domestic carrier to the international carrier's international gateway within Trinidad & Tobago and between the international gateway and the international destination, the cost of capital as well as lost revenue and opportunity cost.</p> <p>Windward Telecom would like to note that any domestic concessionaire that also seeks to provide Indirect Access services, CPS or CS, to the customers of other domestic concessionaires, should be, for the purposes of cost incursion and methodology, be considered to act as an international concessionaire. For example, if Columbus Communications, Digicel, B-Mobile or TSTT wish to provide long distance or international calling services to customers who subscribe to a different domestic concessionaire through Indirect Access, then they are responsible for their appropriate allocation of the overall establishment cost of Indirect Access as they will benefit from it. This should be treated separately from the determination of establishment cost which MUST not be used to subsidize the cost of entry into the Indirect Access market.</p>	<p>Take into account significant costs already incurred by the international concessionaires to purchase equipment that is at this very moment being used by TSTT for its own internal Indirect Access long distance services. (All capital cost recovery mechanisms must be fully transparent).</p> <p>Take into account the division of establishment costs amongst not only current concessionaires, but future concessionaires so that current concessionaires are not subsidizing their own competitors at a future date.</p> <p>Take into account the division of establishment costs amongst any domestic concessionaire who offers CPS or CS Indirect Access services.</p> <p>Windward Telecom would recommend clear,</p>	<p>Noted</p> <p>Noted</p> <p>Noted</p>

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8.3 Establishment costs	Windward Telecom		unequivocal, non-negotiable timeframes and deadlines that domestic concessionaires must abide by in during the implementation of Indirect Access for both CS and CPS. Windward would also recommend that unacceptable delays and breaches of these timeframes and guidelines be responded to with financial penalties as well as a reduction in costs payable by the specific international concessionaire to the domestic concessionaire commensurate with the financial harm incurred by the international concessionaire during the time from missed deadlines to actual implementation. Due to the previous, current, and ongoing delays in the implementation of existing regulated services, Windward finds these	Noted

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8.3 Establishment costs	Windward Telecom		measures absolutely necessary in order to prevent financial harm from being incurred through non-compliance of Regulations and to remove the economic benefit derived by the domestic concessionaire that is experienced in the marketplace through the delay in implementing a competitive-enabling service.	Noted
8.4 Cost Recovery	Windward Telecom	Windward Telecom concurs with the Authority's findings on Cost Recovery, but believes that the development of all Costing Methodology be subject to fully-transparent, public consultation as to both cost and the appropriate technology	In the past TSTT unilaterally determined the technology and vendor choice and interconnecting carriers were forced to adopt that technology and pay for such interconnection equipment without proper financial documentation and without full knowledge of the cost allocation	Noted.
8.5 User costs	Windward Telecom	Windward Telecom concurs with the Authority's findings on User Costs, but believes that the development of al Costing Methodology be subject to fully-transparent public consultation as to both costs and cost allocation.		Noted.

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Section 9- Methodology for the Implementation of Indirect Access				
Implementation of Indirect Access	Windward Telecom	Last month the Authority queried Windward and other carriers as to their readiness for implementation. Windward Telecom is fully prepared to implement and given that the carrier interfaces are in place through interconnection at TSTT's Nelson CO there should be no prolonged delay. Any reticence to comply with a short-term implementation scheduled (3 months) should be viewed by the Authority as self-serving and anti-competitive.	Carrier pre-selection should be mandated by December 31, 2009	Noted. It is the Authority's view that Indirect Access should be implemented at the earliest.
Other				
Quality of Service Regulations	TSTT	TSTT understands that it would have to adhere to QoS regulations. The point is where different technologies are employed by different providers, who then is responsible for the interconnection equipment and the quality of the service provided by this equipment?	The integrity and cost of maintaining this interconnection should be borne by the concessionaire requesting it.	The Authority does not agree with this recommendation. In any event, the QOS regulations would specify the necessary parameters to be measured and followed on interconnection links between concessionaires.