



## **Barbados Two Stage Dialing Policy**

### **Policy in accordance with section 4(2)(b) and 4(2)(f) of the Barbados Telecommunications Act CAP 282B.**

#### **1. INTRODUCTION**

- 1.1.** With the Full Liberalization of the Telecommunications market in Barbados it is necessary for customers to be able to choose alternatives. Subscribers to Domestic Services should be able to select the services of any licensed International Service Provider.
- 1.2.** Two Stage Dialing is a service which introduces competition to a telecommunications marketplace for international services.
- 1.3.** This policy defines the principles involved for the provisioning of Two Stage Dialing Services.

#### **2. REGULATORY FRAMEWORK**

- 2.1.** It is incumbent on regulators and policy makers to ensure that there is a marketplace which provides the greatest consumer choice, quality and protection, while at the same time ensuring the opportunity for Carriers, small or large, to work in a fair competitive environment and have the opportunity to achieve a reasonable rate of return on investments, innovations and efficiencies.
- 2.2.** This Framework takes a technology neutral position. However, it is recognized that there are certain specific technologies, datasets and nomenclatures involved with Two Stage Dialing.
- 2.3.** This Framework takes a “consumer centric” view of the marketplace.

### **3. DEFINITIONS**

Terms used in the plural have the same meaning as their singular, as appropriate.

- 3.1.** “Call”: The set-up, holding and ending of a connection between two devices, through one or more networks, using ITU-T E164 numbering as source and/or destination addressing.
- 3.2.** “Carrier”: Shall have the meaning ascribed to it in the Barbados Telecommunications Act CAP 282B.
- 3.3.** “Commission”: Shall have the meaning ascribed to it in the Barbados Telecommunications Act CAP 282B.
- 3.4.** “Interconnection”: Shall have the meaning ascribed to it in the Barbados Telecommunications Act CAP 282B.
- 3.5.** “Interconnection Agreement”: Shall have the meaning ascribed to it in the Barbados Telecommunications Act CAP 282B.
- 3.6.** “Interconnecting Circuit”: Refers to any connecting arrangement and infrastructure between Carriers for the conveyance of calls.
- 3.7.** “ITU”: The International Telecommunication Union.
- 3.8.** “ITU-T E164”: An ITU-T standard defining the international public telecommunications numbering plan. “An ITU-T E164 number” means a regular telephone number format as used throughout the world. Within the North American Number Plan, these numbers take the form “NXX NXX XXXX” and may be sometimes referred to as NPAs.
- 3.9.** “International Call”: The case where a Call originates within Barbados and terminates outside of Barbados, or originates outside of Barbados, and terminates within.
- 3.10.** “North American Numbering Plan”, “NANP”: The telephony numbering standard used in North America and other areas, including Barbados.
- 3.11.** “Operational Support Systems”, “OSS”: The systems and knowledge, including equipment, software, humans and datasets used to operate a complex system such as a telephony network.
- 3.12.** “Public Switched Telephone Network”, “PSTN”: Shall have the meaning ascribed to “Public Telephone Network” in the Barbados Telecommunications Act CAP 282B.

- 3.13.** “Service”: One or more services offered by a Carrier, including but not limited to Call origination, termination and conveyance.
- 3.14.** “Service Supplier”: Within the context of an Interconnection Agreement, means the Carrier providing Service to the Service Taker during a particular Call. For the elimination of any doubt, the Service Supplier receives Calls for conveyance or termination.
- 3.15.** “Service Taker”: Within the context of an Interconnection Agreement, means the Carrier which is taking Service from a Service Supplier during a particular Call. For the elimination of any doubt, the Service Taker conveys calls to the Service Supplier.
- 3.16.** “Subscriber”: An end-user with whom a Carrier has entered into an agreement for the provisioning of Services.
- 3.17.** “Switch”: An intelligent device used by a Carrier to receive, route, convey, and/or terminate Calls. Within the industry, a “Class 5 Switch” connects to Subscribers, while a “Class 4 Switch” connects between Carriers. A “Class 4/5 Switch” does both.
- 3.18.** “Telephony”: The technology associated with the electronic transmission of voice, fax, or other information between distant parties using systems historically associated with the telephone.

#### **4. TWO STAGE DIALING SERVICE DESCRIPTION**

The Service Description defined in this section is from the perspective of the Subscriber.

##### **4.1. “Two Stage Dialing” (Telephony)**

Also known as “TSD”, “2SD”, “Calling Card Service”, “1-800 Calling Service”

Two Stage Dialing means that a Subscriber is able to Call a local ITU-T E164 based number, and reach a “calling platform” operated by an alternative Carrier. This platform is usually an automated authentication gateway for International Call termination.

The calling platform authenticates the caller for access by way of an access code, credit-card number, prearranged billing based on the calling number, etc. The platform then provides access to “International dial-tone” for the completion of the call.

Carriers offering Two Stage Dialing must be licensed to provide International Services.

## **5. PSTN INTERCONNECTING CIRCUITS**

- 5.1.** The required infrastructure for Two Stage Dialing is simply PSTN Interconnecting Circuits between Carriers. Carriers wishing to offer Two Stage Dialing Services are therefore permitted and obligated to negotiate and purchase PSTN Interconnecting Circuits with existing Carriers.
- 5.2.** For the elimination of any doubt, such Interconnecting Circuits are often referred to using such names as “Line Side Access”, “Feature Group B”, “Trunk Side Access”, “Feature Group D”, “Sub-owned Trunk Lines”, “PABX Trunk Lines”, “PABX Trunk Line via T1” and others.
- 5.3.** Carriers with an Interconnection Agreement with a carrier may utilize circuits over the Physical Join for the conveyance of Two Stage Dialed services. Alternatively, retail priced, copper-based “Trunk Side” circuits may be used by Carriers.
- 5.4.** All Carriers are required to negotiate and implement these Interconnecting Circuits in a timely manner and in good faith.
- 5.5.** As stated in the Interconnection Policy Section 2, Interconnection Seekers may request Interconnection “at any point on the network, which is technically practical to do so.” Additionally, Seekers are “able to buy only those elements of the incumbents network they require.”
- 5.6.** For the elimination of any doubt, this means a Carrier wishing to offer Two Stage Dialing may request the required Interconnecting Circuits be implemented as most optimal to the Seeker, including legacy copper-based “line side and “trunk side” services.
- 5.7.** For the further elimination of any doubt, Interconnecting Circuits are existing products with established tariffs.

## **6. IMPLEMENTATION**

- 6.1.** Within this Section “Carrier A”, “Carrier B” and “Carrier C” are to be read as referring to abstracted instances of Carriers in order to communicate relationships.
- 6.2.** “Carrier C” is the Service Supplier who is wishing to offer Two Stage Dialing services to current customers of the existing Barbados PSTN.

- 6.3.** “Carrier A” is the Carrier being asked for Interconnecting Circuits by Carrier C. Carrier A will be a Service Taker, in that its customers will originate Two Stage Dialed Calls to Carrier C for final termination. Carrier A may also convey Calls from other Carriers to Carrier C. Within this section, Carrier A is usually, but is not always, the incumbent carrier.
- 6.4.** “Carrier B” refers to a Carrier which is has PSTN Interconnecting Circuits with Carrier A, but not Carrier C. Carrier B is a Service Taker, in that its customers may originate Two Staged Dialed Calls to Carrier C for termination. These calls will transit Carrier A's network in order to reach Carrier C. There may be multiple instances of Carrier B.
- 6.5. Infrastructure Build**
- 6.6.** The processes for the implementation of Two Stage Dialing begin when Carrier C formally requests access to Carrier A's network under this Framework.
- 6.7.** For the elimination of any doubt, this access request means that after implementation, Carrier C will be able to offer its Two Stage Dialing Services to Subscribers of Carrier A and any Carrier B currently interconnected with Carrier A.
- 6.8.** This request will trigger commercial negotiations between Carrier C and Carrier A to come to mutually agreeable terms and conditions on the means of implementing the required Interconnecting Circuits.
- 6.9.** If mutually agreeable terms cannot be reached, both Carrier C and Carrier A will submit a detailed report to the Commission explaining why. These reports will include detailed legal, technical and financial sections, and will be submitted within 14 days of written notice being provided by either Carrier to the other and the Commission that the negotiations have failed.
- 6.10.** Carriers are encouraged to be innovative when making infrastructure decisions. Examples include, but are not limited to, reuse of existing Interconnections, use of alternative Interconnection types, use of modern Telephony “Softswitches” and the use of VoIP protocols.
- 6.11. Service Delivery**
- 6.12.** Once the Infrastructure Build has been completed between Carrier C and Carrier A, Carrier C can immediately begin offering its Two Stage Dialing Services.
- 6.13.** Subscriber billing will be done by Carrier C.

## **7. CARRIER RIGHTS AND OBLIGATIONS**

- 7.1.** The Minister may obligate any Carrier to convey Two Stage Dialing Calls from that Carrier's Subscribers to other Carriers.
- 7.2.** All Carriers who have Interconnection Agreements enabling "Any-to-Any Dialing" to one or more other Carriers are immediately obligated to convey Two Stage Dialing Service from their Subscribers to all other such Interconnected Carriers offering Two Stage Dialing.
- 7.3.** The Carrier C wishing to offer Two Stage Dialing calls may use NPA NXX numbers assigned to itself, or and/or numbers owned and assigned by Carrier A.
- 7.4.** No Carrier may use any number, including NPAs, not assigned for its use. For the elimination of any doubt, this means that when a Carrier's subscriber dials a regular telephone number for Two Stage Dialing, the Call will either be conveyed to the appropriately assigned Carrier, or the Call will fail.
- 7.5.** In the case of Call failure, an audio message explaining the reason ("All Circuits Are Busy", "That Service Is Not Available", etc) will be heard by the Subscriber. If, and only if, the Carrier's equipment is not able to present pre-recorded audio messages, a "fast busy" tone will be heard.

## **8. COSTS**

The costs associated with the delivery of Two Stage Dialing can be broken down into two main areas. These are detailed in this Section.

- 8.1.** "Interconnecting Circuit Costs" are those implementation costs which are related to the actual circuits used for the conveyance of Two Stage Dialed Calls between two or more Carriers. These costs are specified in the existing Barbados tariffs.
- 8.2.** These costs are to be borne by the Carrier C, the Service Supplier. Multiple Service Suppliers are encouraged, but not obligated, to partner with each other in order to reduce the number of Interconnections required to offer services.
- 8.3.** "System Costs" are those costs associated with a Service Taker's (Carrier A and any Carrier Bs) own Switches, OSSs and any and all other infrastructure and business processes needed to recognize and correctly convey Two Stage Dialing Calls from its Subscribers to other Carriers.

- 8.4. For the elimination of any doubt, as Two Stage Dialing is exactly the same as a regular phone call on the PSTN, no System Costs are envisioned.
- 8.5. Any System Costs which do occur are to be borne by the Service Taker. As Two Stage Dialing is widely deployed technology, it is assumed that such Services can be expected of any modern Carrier as a reasonable “cost of business”.
- 8.6. Additionally, by so obligating the Service Taker, which will be deriving revenue from the Service Supplier by way of the Interconnecting Circuits, it ensures the Service Taker will implement whatever is needed in the most cost effective manner possible.

## **9. ACKNOWLEDGEMENTS**

- 9.1. This Framework recognizes and has been influenced by the work of many organizations, including the International Telecommunication Union (ITU), the UK Office of Communications (OfCom), the USA Federal Communications Commission (FCC), the Canadian Radio-television Telecommunication Commission (CRTC), and the North American Numbering Plan Administration (NANPA).
- 9.2. The Minister acknowledges responses to the first Proposed Policy on Indirect and Equal Access in Barbados, and would like to thank the contributions of the Telecommunications Act Revision Committee (TARC).

**Issued by Telecommunications Unit  
Ministry of Economic Affairs and Development  
2007-11-16**