
Office of Utilities Regulation

UNIFORM DOMESTIC DIALLING PLAN

Notice of Proposed Rule Making



OFFICE OF UTILITIES REGULATION

January 2007

ABSTRACT

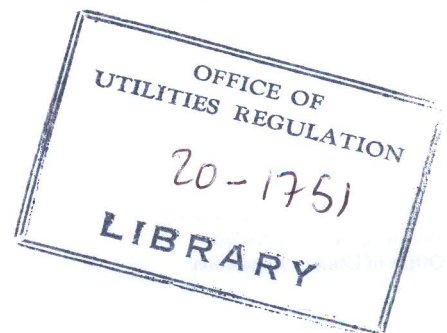
In this document, the Office sets out the basis on which it proposes to make rules for the implementation, by carriers and service providers, of a Uniform Domestic Dialling Plan that will provide a single dialling standard for domestic calls within Jamaica. Specifically, the Office proposes to require a standard 7-digit dialling pattern for domestic calls within all and between any two networks without the use of a toll prefix such as the existing 1+ toll prefix. The office further proposes to require that carriers provide alternative means for toll indications on domestic calls to protect the interests of consumers.

Comments on this document are due by March 2, 2007 and should be submitted to:

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COMMENT FROM INTERESTED PARTIES

Persons who wish to express opinions on this Consultative Document are invited to submit their comments in writing to the OUR. Comments are invited on all aspects of the issues raised, and in particular the specific questions posed.

Responses to this Consultative Document are due by March 2, 2007 and should be sent by post, fax or e-mail to: -

Curtis N. Robinson
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Kingston 10

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Information considered confidential should be submitted separately and clearly identified as such. In the interests of transparency, respondents are requested to avoid confidentiality markings wherever possible. Respondents are encouraged to supply their responses in electronic form, so that they can be posted on the OUR's Website (or a link included where the respondent wishes to post its response on his/her own website).

Comments on responses

The responses to this Consultative Document form a vital part of the consultation process, and so far as possible, should also be publicly available. Respondents will therefore have an opportunity to view and comment upon the responses received from other contributors. Comments may take the form of either correcting a factual error or putting forward counter arguments. **Comments on responses are requested by March 17, 2007.**

Arrangements for viewing responses

To allow responses to be publicly available, the OUR will keep the responses that it receives on files, which can be viewed by, and copied for, visitors to the OUR's Offices. Individuals who wish to view the responses should make an appointment by contacting the Senior Information Officer by one of the following means:-

Telephone: (876) 968 6053
Fax: (876) 929 3635
E-mail: <mailto:ghenderson@our.org.jm>

Individuals may request photocopies of selected responses at cost price. Copies may also be ordered by post by sending a cheque made payable to "Office of Utilities Regulation." (the contact details above may be used to find out the correct amount).

The consultation schedule is tabulated below:

EVENT	DATE
Response to this Document by interested parties	March 2, 2007
Comments on respondents' response	March 17, 2007

CHAPTER 1: INTRODUCTION

Purpose of Document

- 1.1 Section 8 (3) of the Telecommunications Act 2000 (the Act, the Telecoms Act) provides that the Office, as Numbering Administrator, “In carrying out its functions ...shall develop a plan for the numbering of telecommunications services and may make rules pursuant to that plan regarding the assignment and use of numbers by carriers and service providers”.
- 1.2 This document sets out, for consultation purposes, the Office’s proposal to institute a Uniform Domestic Dialling Plan (UDDP) pursuant to its mandate under the telecom Act to promote competition. Thus, the UDDP is intended to provide dialling parity for all customers for all domestic calls and thereby satisfy the requirement for competitive fairness and equity for competing carriers and service providers in this market.
- 1.3 The document explains and discusses the basis for the proposed adoption of the UDDP and, on which the Office proposes to make rules to govern the implementation of the UDDP by carriers and service providers. Six proposed policy outcomes are outlined at the end of the document that should provide the basis for the final rules.
- 1.4 The document is intended to provide the public with the opportunity to provide detailed comments on the Office’s proposals. Respondents are encouraged to propose options or alternatives and provide explanation of the benefits of those options or alternatives. Respondents should also point out relevant issues that the OUR may have failed to consider.

CHAPTER 2: PURPOSE AND CONTEXT OF CONSULTATION

- 2.1 This consultation takes the form of a Notice of Proposed Rule Making (NPRM) and is, in part, the Office's response to complaints from local carriers who have objected to Cable & Wireless Jamaica's (C&WJ) requirement that its customers must dial the "1+" prefix before the telephone number when calling the numbers of customers on other fixed networks. The Office takes the view that Dialling Parity in the local telecommunications market is a fundamental requirement of the non-discriminatory Interconnection regime as implicit in the language of the Telecoms Act and the intent of Parliament to encourage the entry of new competitors into the markets for domestic and international call. Interested parties are invited to provide us with specific comment on this
- 2.2 In addressing the dialling and competitive concerns articulated by carriers and service providers, the Office looks at existing and proposed North American Numbering Plan (NANP) numbering and dialling facilities and pertinent developments in the wider global industry. Importantly, the interests of the customer are made a major focus in the discussions. All of these considerations afford appropriate explanation or reinforcement of numbering knowledge that, together with an understanding of the relevant statutes, is necessary for establishing the context for a proper understanding of the subject issues and the required stakeholder consultation/participation and decision-making.
- 2.3 The Office holds the view¹, notwithstanding the current limited competition in the local fixed line service markets and concomitant barriers to entry that, with new technologies and innovative product offerings, the local fixed network service markets may become far more attractive to investors in the medium term. Thus, as the delivery of these services continues to be dependent on the use of diallable telecommunications numbers, dialling parity among competing carriers becomes a competitive necessity. Dialling parity in this context is to be understood to mean: equal dialling access provided to customers on all networks to reach customers on other networks. That is, no additional codes or numbers beyond the basic 7-digit telephone number are required to reach the customers of other service providers in the national network.
- 2.4 The dialling plan which existed under the telecommunications monopoly regime, that is, prior to the advent of the telecommunications liberalization policy in March 2000, has largely remained, *de facto*, in force up to the present time. Indeed, the Office had signalled its intention, in section 8.2 of its "Determination Notice on the Jamaican National Numbering Plan", to consult on a National Dialling Plan.
- 2.5 The overriding imperative to implement rules to reflect a competitive telecommunications environment has yet to take effect. This is illustrated by the

¹ Price Cap Plan for Cable & Wireless Jamaica – OUR Consultative Document No: 2006/...

absence of Indirect Access rules, a carrier independent Toll-Free service regime and dialling Parity. Formal processes are in train to treat with these competition-related matters, and this NPRM may be regarded as a first step in relation to the matter of the National Dialling Plan.

CHAPTER 3: OBJECTIVES OF THE NOTICE OF PROPOSED RULE MAKING (NPRM)

- 3.1** In this NPRM, the Office proposes the adoption of a uniform 7-digit dialling plan as a single national standard for domestic telephone calls. This dialling pattern is intended to remove all dialling distinctions between ‘local’ and ‘toll’ calls within Jamaica and thus, eliminates the use of the 1+ prefix as a toll indicator for any domestic call. The Office further proposes that the toll indication be given to a caller in another and non-dialling manner, such as a tone or recorded announcement informing the caller that additional charges may apply.
- 3.2** The Office believes that the proposed dialling plan equates to dialling parity for all subscribers, and in the long term would result in fewer dialling errors that inhere in other dialling plans, whether current or envisaged, which differ in the number of dialled digits for local vs. toll calls. Importantly, however, the 1+ prefix will be retained for the dialling of calls to domestic Toll Free numbers (in the format 888-NXX-XXXX) and Foreign NPAs.
- 3.3** This means that call type indications and cost differentiation provided by the number allocation scheme prescribed in the Jamaican National Numbering Plan (JNNP), in accordance with the telecoms Act, are of even greater importance and must therefore be preserved. This is to promote fair competition and satisfy customer information needs while their other needs for equity and convenience are met by the uniform dialling plan. The JNNP uses the first digit of the telephone number to provide customers with a broad indication of service type and cost associated with that number. For instance, telephone numbers beginning with the digits 3, 4, 5, and 8 are allocated to mobile services. Mobile rates are typically higher than fixed network rates.
- 3.4** The key objectives of the Office with regard to the authorization and implementation of a uniform dialling standard for domestic calls are as follows:

To promote competition through dialling parity, that is, by enabling a customer of a carrier/service provider to dial others with the convenience provided by any other carrier/service provider. Dialling parity provides a safeguard for a non-discriminatory interconnection regime and thus encourages the entry of new competitors into the market for Domestic and international calls. This promotes consumer choice.

Furthermore:

1. Dialling parity is intended to reduce the potential for ineffective call attempts which results from dialling pattern variations, and reduces consumer frustration.

2. A uniform dialling plan is intended to allow for easier and consistent customer education, and dialling uniformity, which would especially benefit the travelling public.
3. With the single arrangement promised by uniform domestic dialling, callers will know they are making an international call within the North American Numbering Plan area whenever they dial a "1" as the first digit before the telephone number. The next three digits dialled will always indicate an area code.
4. A uniform domestic dialling plan is intended to provide a dialling standard that will be more appropriate, easily understood and accepted, in an environment where increasingly, there are rate plans that do not differentiate between local and toll calls, for example, 'unlimited calling' and 'single rate' plans.

3.5 Against the backdrop of the discussions in paragraphs xx, xx and xx(chap.5), the Office's introduction of uniform 7-digit domestic dialling in Jamaica, at this time, is prudent and necessarily proactive in providing for a seamless transition to uniform 10-digit dialling in the future, along with satisfying immediate competitive needs of the industry and keeping in step with international trends which present a diminishing case for retaining separate local and national dialling procedures.

3.6 The Office seeks to ensure that all affected parties have sufficient confidence and certainty in order to facilitate the smooth introduction of the new domestic dialling standard.

CHAPTER 4: BACKGROUND

- 4.1 On October 25, 2005 and January 13, 2006 the Office notified C&WJ of its desire to discontinue the use of the 1+ prefix as a toll indicator on domestic calls. In its response C&WJ advised: *"... while not certain, it did not appear that there was a technical difficulty in removing the "1" toll indicator, however [C&WJ] had strong customer experience reservation...the "1" indicator alerts customers that they will be making a call that will attract a higher rate than a domestic call"*.
- 4.2 In March 2006, C&WJ stated formally regarding the Office's proposal on 1+ dialling: *"...C&WJ is not opposed to the OUR's proposal, once it is technically and practically feasible...C&WJ is disadvantaged in not having sufficient information from the Office with which to appropriately consider the removal of the "1" toll prefix...C&WJ therefore recommends that the Office initiates a public consultation on the removal of "1" prefix dialling"*.
- 4.3 However, concern has arisen in the industry that C&WJ's continued use of the 1+ prefix for its *"Fixed to 3rd party Fixed"* calls has potential negative competitive consequences for competing carriers and service providers.
- 4.4 Specifically, on June 14, 2006, Columbus Communications Jamaica Limited (trading as Flow) formally requested *"the Office of Utilities of Regulation (OUR) to intervene so as to prevent Cable & Wireless Jamaica Limited (C&WJ), the dominant carrier, from continuing its anti-competitive practice of requiring consumers accessing Columbus Communications network via C&WJ to dial the digit "1" before the seven digit number"*.
- 4.5 Flow also opined: *"...a uniform numbering pattern makes it easier for a new entrant to present to the consumer seamless and familiar access to the PSTN. Every digit translates into a cost to program the switch which is eventually passed on in the cost of interconnection. Further the longer the number, the greater the chance for misdialled traffic which aside from inconveniencing the consumer, can tie up equipment unproductively thus increasing cost. The pre-dial "1" represents an additional hurdle that the consumer must overcome to access our network. It is an obstacle that the dominant provider does not have to overcome"*
- 4.6 Flow also stated regarding C&WJ's customers' dialling of Flow's numbers: *"...call placed without pre-dialling "1" result in a pre-recorded message that erroneously indicates that long distance charges apply and the call is terminated. It is our position that C&WJ's practice is an abuse of its dominant position in the marketplace, is clearly anti-competitive and is not in the best interest of Jamaican consumers". Clearly consumers will resist making a call when it has been implied that long distant charges apply. This impedes the ability of competitors to gain market share from the incumbent and build a successful business. This is an effective deterrent to competition"*.

4.7 On June 15, 2006, Peoples Telecom Jamaica Limited drew attention to the fact that C&WJ's customers did not need to dial the "1+" prefix when placing calls to telephone numbers on the fixed networks of Gotel, Oceanic Digital Jamaica (ODJ) or to C&WJ's NetSpeak customers.

4.8 In response to these claims, C&WJ noted that prior to the introduction of its "one rate" (Single National Rate) regime, "its customers were billed at a lower rate for call within their exchange area (intra-parish) than for calls outside their exchange area (inter-parish). To make an inter-parish call, C&WJ's customers therefore had to dial the "1" prefix so as to alert them to the higher charge. C&WJ's policy in this regard has consistently been that where the customer will be charged at a higher rate the customer is notified of the higher charge by virtue of the use of the 1+ dialling format. This is a consumer protection device which C&WJ does not think it prudent to abandon". C&WJ also indicated that it had advised the OUR on February 17, 2006 that rates "from C&WJ fixed to call Gotel, Columbus Communications (Merit Communications) and ODJ" were as tabulated in Table 1 below, and compared the rates with those for calls on C&WJ's fixed network:

Table 1 Termination Rates from CWJ to Domestic Fixed Networks

TERMINATING NETWORK	RETAIL RATES (JS/60s)		
	Peak	Off Peak	Weekend
Gotel	2.82	2.82	2.82
Merit	2.82	2.82	2.82
ODJ Fixed	3.40	3.40	3.40
C&WJ Fixed	0.90	0.60	0.60
(C&WJ NetSpeak)	0.90	0.60	0.60

4.9 C&WJ further explained that the non-requirement of the "1+" prefix for calls to Gotel and ODJ was an internal error which might have occurred at the time of the implementation of the Single National Rate. That anomaly has since been rectified.

CHAPTER 5: DISCUSSION

5.1 this section the Office identifies and discusses the salient issues that the Office took account of in the formation of its position on the matter of dialling parity and the introduction of a Unified Domestic Dialling Plan.

User Friendly Numbering Arrangements

5.2 Numbering is a *sine qua non* of telecommunications, and thus it is commonly accepted that user-friendly telecommunications numbering is the key to effective telecommunications. User-friendly numbering is important to customers wanting access to other users, services or networks, and to carriers and service providers, whose objective is to ensure optimum use of their networks and services.

5.3 Ideally, a user-friendly numbering scheme should be easy to understand and use, with simple and uniform dialling procedures. Such a scheme should be designed to minimise as far as practicable the time taken to establish a call and the risk of misdialling. In addition, numbers should convey information to the caller on the price and the type of service called and, in the case of geographic numbers, the area in which the party to be called is located; however, the relevance of the latter characteristic diminishes with the move away from distance-based pricing of services.

5.4 The variety and scope of services available to users is expected to broaden over the next few years. The growing use of wireless access together with convergence and bundled service offerings, including IP based services, will impact on this development. A national numbering scheme must therefore continue to evolve to accommodate these changes in a way that maintains an acceptable level of user friendliness and stability.

5.5 The factors which impact on user friendliness of numbering include (not exhaustively):

- dialling procedures
- number lengths and number formats
- need for service and charge information
- need for location information
- use of short codes and prefixes
- presentation of numbers
- international requirements and constraints

5.6 These factors may have conflicting applicability in certain circumstances. For instance, it may not be practicable to effectively provide location and charge information through the same set of numbers.

5.7 Four of these factors are of especial relevance to this consultation: dialling procedures, service/charge information, the use of prefixes and international

requirements. Here service/charge information relates to the provision of information regarding toll calls. Typically a toll call is a telephone call for which a higher rate is charged than that standard for a local call. Traditionally within the North American Numbering Plan area, the 1+ prefix has been used as the toll indicator. However, concomitant with the inception of 10-digit local dialling in the United States and Canada (in places that are served by more than one area codes by means of NPA (area code) overlay², NPA split³ or NPA boundary redefinition) 10-digit Uniform Dialling Plans have been introduced in some states and provinces, which necessitates the elimination of the 1+ prefix and its substitution with a post-dialling alert tone as the toll indicator to signal to the caller that the call is a toll call.

Numbering Plan and Dialling (Plan) Procedures

- 5.8** The Jamaican National Numbering Plan is part of the regional numbering plan, the North American Numbering Plan (NANP), which conforms to international standards and is appropriately compliant with the International Telecommunications Union's ITU-T Recommendation E.164 "The Public Telecommunications Numbering Plan". This compliance is essential for participation in International Direct Distance Dialling (IDDD). ITU-T Recommendation E.164 prescribes that the maximum permissible length of an international telephone number (national number preceded by the country code) is fifteen (15) digits and that the routing of international calls should not require analysis of more than the first 7 digits of the number.
- 5.9** The primary structure of the NANP is the fixed 10-digit format: NXX-NXX-XXXX, where N is any digit from 2 through 9 and X is any digit from 0 through 9. It is sometimes expressed as ABC-DEF-GHIJ. The representation of each segment of the 10-digit structure is further explained in Table 2

² NPA Overlay: An overlay is a relatively new concept in area code relief. In its simplest form, known as a "general services overlay," a new area code is introduced into exactly the same geographic territory currently served by an existing area code. New central office codes from the new area code are assigned right alongside existing central office codes in the old area code. Existing numbers do not change. However, to minimize customer confusion [*and ensure proper routing of calls*], all calls within an overlay area - even local calls within the same area code - must be dialled with the area code [*10-digit dialling*]. Also, the possibility exists that two telephone lines in the same building may have different area codes. (*Linc Madison Consulting 1999-10-08*)

³ NPA (or Geographic) Split: In this, the traditional form of area code relief, a portion of an existing NPA is given a new NPA, with a new geographic boundary separating the two. All existing numbers in the split area must change to the new area code. There is usually a "permissive dialling" period during which numbers in the split area may be reached using either the old or the new area code. (*Linc Madison Consulting 1999-10-08*)

Table 2 Basic Structure of the North American Numbering Plan

NXX	NXX	XXXX
ABC	DEF	GHIJ
NPA (Area Code)	Central Office (CO) Code	Station Number
	Directory Number	

5.10 The North American Number Plan specifies the format for telephone numbers in the United States and its territories, Canada, Bermuda and many Caribbean islands. It provides 10-digit telephone numbers that uniquely identify each subscriber within its zone. The 10-digit NANP number consists of three elements:

1. **Numbering Plan Area (NPA) Code or Area Code** — the first three digits of the 10-digit telephone number. Eight of these codes are reserved for use as N11 or Service Codes (such as 311, 811 and 911), and eight are reserved for N00 or Service Access (such as 800 or 900).
2. **Central Office Code** — the second three digits of the 10-digit telephone number. Eight of these codes are reserved for use as N11 or Service Codes (such as 311, 811 and 911).
3. **Station number** — the last four digits of the 10-digit telephone number, which identifies a unique station address within a particular central office code. Each central Office code subsumes 10,000 station numbers.

5.11 NPA codes, often called “area codes”, are normally used for identifying specific geographical areas. For example, NPA 212 covers the island of Manhattan; NPA 605 covers the state of South Dakota and NPA 876 covers the island of Jamaica. Allocations of subsuming numbers are made for geographic and non-geographic services, including mobile services. All other diallable numbering resources used by telephone systems fall in the categories of prefixes or access codes. In their use for placing calls, these numbers, access codes and prefixes, singly or in combination, constitute the Dialling Plan.

5.12 Prefixes and access codes are used to gain access to certain services or call types. The prefix (and suffix) is a dialling code used for the following conditions or purposes:

- Toll indicator
- Operator assistance needed
- International call
- End of dialling indicator (the Number Sign (#) serves as the end of dialling indicator)

5.13 The most common prefixes associated with the NANP are the digit “1” preceding a sent paid toll call and the digit 0, which precedes an operator-handled toll call.

Prefixes are usually deleted or processed in the originating switch before the NANP number digits are used to route the call to its final destination. The standard prefixes and access codes used in NANP are shown in Table 3. The dialling procedures and prefixes that apply in Jamaica are shown in Table 4.

Table 3: NANP Standard Customer-dialled Prefixes and Access Codes

PREFIX OR ACCESS CODE	USE OF CODE
0-	Telephone Company Operator
0+	Person Paid Collect Special (PPCS) Call
00	Long Distance Carrier Operator
01	International PPCS Call
011	International Station to Station Sent Paid (SSSP) Call
1+	Toll Access for SSSP Calls
*XX (*XXX)	Vertical Service Code for service access or feature Activation
11XX (11XXX)	Vertical Service Code Alternate (Permissive) Access
101XXXX	Carrier Access Code (CAC), Feature Group "D"
950XXXX	Carrier Access Code (CAC), Feature Group "B"

Table 4 – Domestic and International Dialling Procedures

CALL CASE	CUSTOMER DIALS	COMMENTS
International calls (direct dialled) Within World Numbering Zone 1 (NANP Area)	1 + Area Code + Subscriber Number	Numbering Zone which represents the NANP area has been assigned Country Code 1 which is not to be confused with the 1+ prefix. WNZ1 has only one country code which is now the only single digit Country Code.
International calls (direct dialled) Outside of World Numbering Zone 1	011+ Country Code + NDC Code + Subscriber Number	
International calls (operator assisted) Outside of World Numbering Zone 1	01 + Country Code + NDC Code + Subscriber Number	Customer Dialled Operator Serviced (CDOS) Calls
Local Toll Free calls	1 + 888 + NXX -XXXX	
Domestic calls (direct dialled)	1 + 7-digit Subscriber Number	To be discontinued with UDDP
Domestic calls (direct dialled)	7-digit Subscriber Number	
Domestic call (operator assisted)	0 + Subscriber Number	CDOS Calls
Domestic Operator	0 -	Operator Dialled Calls

Local Dialling vs. National Dialling

- 5.14** Historically, the use of fewer numbers of digits in the local dialling (as distinct from national dialling) procedure contributed to its user friendliness. But the relative value of this feature has been diminished by touch-tone and memory dialling capabilities in telephones. Currently in Jamaica and other NANP-member states in the Caribbean, local and national dialling are not differentiated on the basis of number length; both require only seven digits (which is less than the ten digits in the standard NANP number described above) to complete a call.

Non-NANP Regions

- 5.15** An increasing number of countries and more so in Europe, have implemented a closed dialling plan, which is a national requirement to use all digits of a national number (often including a trunk prefix) to place a call, whether local or long distance. The current systems in France, Belgium, Poland and Ethiopia are examples of closed dialling plans in which the trunk prefix and area code are included as part of the basic number structure (the trunk prefix is not dialled when calls are to telephone numbers from outside the country). The following case of France provides an example:
- 5.15** France's numbering plan previously had a 1-digit area code and an 8-digit subscriber number. The trunk prefix (or toll prefix) was changed from "16" to "0" (zero is commonly used for the trunk prefix in countries outside of the NANP area). With the restructuring of its numbering plan a 10-digit dialling plan was introduced for all numbers within France. The new numbers consist of 0 followed by a single-digit zone code, then 8 digits based on the old subscriber numbers. For example, a Paris number of (1) 23456789 became 0123456789 while a number outside Paris of 98765432 became 0298765432 (if assigned to zone 2). In effect, area codes are eliminated in favour of 10-digit national numbers that will always be dialled in full, whether for local or long distance calls. When dialling from outside France to French numbers, the leading 0 digit is not dialled.
- 5.17** Some countries have migrated to another form of the closed dialling plan which eliminates the trunk prefix altogether. Such countries include Spain (trunk prefix 9 assimilated to front of numbers), Italy, Portugal, Switzerland, Greece, Czech Republic, Hong Kong, Honduras, Costa Rica and Qatar.
- 5.18** An open dialling plan is one in which different dialling arrangements for local and national telephone calls apply. Open and closed dialling plans should not be confused with open and closed numbering plans. A closed numbering plan refers to a telephone numbering scheme that has a fixed number of digits. The North American Numbering Plan is an example, because all telephone numbers have a fixed 10-digit length as explained earlier. Table 5 shows commonly referenced countries and the dialling plans used:

Table 5: Non-NANP Dialling Plans

Austria	Open	Luxembourg	Closed
Belgium	Closed	Netherlands	Open
Costa Rica	Closed	Norway	Closed
Czech Republic	Closed	Poland	Closed
Denmark	Closed	Portugal	Closed
Ethiopia	Closed	Qatar	Closed
Finland	Open	South Africa	Closed (January 16, 2007)
France	Closed	Spain	Closed
Germany	Open	Sweden	Open
Greece	Closed	Switzerland	Closed
Hong Kong	Closed	United Kingdom	Open
Ireland	Open		
Italy	Closed		

Table 6: Comparison of open and closed dialling plans

DIALLING PLAN	DESCRIPTION	ADVANTAGES
Open	<p>separate local and trunk (long distance, national) dialling procedures, varying lengths of codes or subscriber numbers or of both</p> <p>one in which different dialling arrangements for local and long distance telephone calls apply</p>	<p>provides shorter numbers for local calls</p> <p>the shorter local number helps to reduce misdialling</p> <p>keeps geographic area identities</p>
Closed	<p>single dialling procedure (no trunk prefix), usually single uniform number length</p>	<p>has no need for trunk (toll) prefix (one digit less on national calls)</p> <p>has a uniform dialling procedure for all calls</p> <p>allows higher capacity utilisation</p> <p>makes number portability easier to introduce</p> <p>is the simple way to expand a number plan</p>

The United States

- 5.19** In the United States, there is no single dialling plan that applies universally in all areas. Key variables in determining a dialling pattern are: 1) whether the call originates and terminates within the same NPA; 2) whether the call is a local or toll call; 3) whether the call requires special handling (e.g., credit card, third-party billing, or non-billing operator assistance). Some dialling patterns in the U.S. have been largely standardized.
- 5.20** In general, Local calls originating and terminating within the same NPA are dialled on a 7-digit basis, omitting the NPA code; the exception is in overlay areas where the NPA code must be dialled. 7-digit toll dialling continues to exist in some states. Most of the variations in basic dialling plans involve toll calls originating and terminating within the same NPA (Home NPA⁴ toll calls) and local calls originating in one NPA and terminating in another NPA (Foreign NPA⁵ local calls).
- 5.21** In areas where NPA overlays or NPA splits have been implemented or where local calling crosses an NPA boundary, local calling requires dialling all ten digits (10D) of the NANP number. Generally, long distance calling to NANP locations outside the originating caller's local calling area requires dialling the prefix 1 plus the 10-digit NANP number for direct dialled calls or dialling the prefix 0 plus the 10-digit NANP number for operator assisted calls. The use of the 1+ prefix has been eliminated for 7-digit local and toll calls.
- 5.22** The United States has a mix of open and closed dialling plans. Table 7 summaries the dialling plan variances (which depend on state public utility commission directives, service provider tariffs, or service provider capabilities):

Table 7: Dialling plan variances in the US

Local calls within the same area code

- 7D
- 10D in overlay areas

Toll calls within the same area code

- 7D
- 10D in overlay areas with a toll indicator
- 1+10D in areas without a toll indicator

Local calls to a different area code

- 10D in areas with a toll indicator
- 1+10D in areas without a toll indicator

Toll calls to a different area code

- 1+10D

Source: CTU Numbering Plan Workshop, 2004

⁴ Home NPA (HNPA): An NPA of which a given telephone number is a unit

⁵ Foreign NPA (FNPA): An NPA other than the Home NPA for a given telephone phone number

Proposed Uniform Numbering plan for NANP Countries

- 5.23** In the late 1990s, the Industry Numbering Committee (INC) examined the need for, and recommended the adoption of, a Uniform Dialling Plan (UDP), for both local and toll calling throughout the NANP area, which would be beneficial for the industry and customers. A supporting view was that uniform dialling throughout the NANP area would have significant benefits, particularly from the perspective of the end user; reduced customer confusion for those who might need to make calls in different geographic areas was seen to be most obvious advantage as customers travelling through different service areas, encountered different dialling plans, which resulted in dialling errors and network announcements to redial. This, it was felt, not only frustrated the caller, but also added unproductive traffic to the network.
- 5.24** The INC recommended that 10-Digit Dialling⁶ be adopted as the UDP. The INC however recommended that the industry address the need for the continued use of a toll indicator; elimination of the 1+ prefix is an element of the Uniform Dialling Plan. In Canada, some carriers supported the implementation of a toll indicator tone when additional toll charges would apply. Concern was expressed however, that a toll warning tone might not be a sufficient indicator for the hard of hearing. But the need for a toll warning indicator will lessen over time as the charges for toll services decline.
- 5.25** Although a uniform dialling plan would not preclude local jurisdictions from permitting alternative non-conflicting alternatives (e.g. 7-digit local dialling), it was expected that the uniform dialling plan would ultimately be implemented throughout the NANP serving area at some future date. The Uniform Dialling Plan is considered a necessary precursor to the expansion of the NANP. In this regard a mandatory NANP-wide implementation is inevitable

Caribbean Countries

- 5.26** The 1+ prefix is not used on domestic calls in Trinidad and Tobago although the country has a distance-based tariff for such calls. Barbados has a flat rate, unlimited usage tariff for domestic calls. The Eastern Caribbean Telecommunications Authority (ECTEL) representing the five Eastern Caribbean States (Grenada, Commonwealth of Dominica, St Kitts/ Nevis, St Lucia, St Vincent & the Grenadines) which constitute the Organization of Eastern Caribbean States has proposed, in its current draft Telecommunications (Numbering) Regulations, the adoption of a dialling plan for that jurisdiction, which provides that:

⁶ **10-Digit Dialling** refers to the mandatory requirement to dial each of the 10 digits of an assigned telephone number (NPA-NXX-XXXX) for all local calling. In a mandatory 10-digit dialling arrangement, every local call dialled will require 10 digits. This is true whether the dialling party is dialling within the Home NPA (HNPA), or to a Foreign NPA (FNPA).

- A local or Home NPA call shall be seven (7) digits [CO Code + Line Number];
- An overseas calls within the NANP shall be eleven (11) digits [1+ Area Code + CO Code + Line Number];
- A non-World Zone 1 calls shall be 011 prefix + Country Code + National Significant Number.

5.27 ECTEL has retained the “1+” prefix solely to differentiate between 7-digit and 10-digit dialling and not as a toll indicator (following the trend in North America).

5.28 In Jamaica, non-incumbent carriers have eliminated the “1+” toll prefix for all domestic calls or are applying it permissively to facilitate customers who might use it out of force of habit. No alternative toll indication is provided on either fixed to fixed or fixed to mobile calls.

5.29 The incumbent, C&WJ, has stated that currently for domestic calling on its fixed network, *“...one plus dialling remains on essentially all calls outside of the current fixed to fixed one rate regime. All other calls (apart from service/toll free calls) attract a higher (toll) rate and are currently prefixed with a ‘one’. These are Fixed to Mobile... fixed to premium rate (Audiotex), Fixed to 3rd party Fixed etc”*.

5.30 It is important to note that the “1+” toll prefix is not used for domestic calling on C&WJ’s mobile network although off-net calls (mobile to mobile and mobile to fixed) are charged at a higher rate than on-net calls for its postpaid service. No alternative toll indicator is provided for calls that attract higher rates.

5.31 NPA growth and area code relief⁷ by way of overlays will continue to increase the requirement for 10-digit local dialling in the NANP-served area, regardless of the need for NANP expansion. Recent developments in Jamaica such as the introduction of VoIP services, the imminent entry of a fourth mobile network operator and the entry of Mobile Virtual Network Operators into the mobile services market, will significantly increase the demand for new numbers. The existing VoIP network operators have expressed the desire to market their services outside of Jamaica with the provision of Jamaican telephone to the customers. The Jamaican Diaspora, which is an obvious market, is estimated to be roughly the size of the population domiciled in Jamaica. This presents a huge potential drain on the existing supply of telephone numbers.

⁷ **NPA or Area Code Relief:** The term "area code relief" refers to the process by which central office codes are made available when there are few or no unassigned central office codes remaining in an existing area code and a new area code is introduced. Providing code relief to an NPA normally takes the form of assigning a new NPA as an NPA split or overlay. Another option is changing the boundary of the existing NPA.

- 5.31 Without an aggressive number conservation strategy that entails measures such as NXX code reclamation and Thousand-block Number Pooling⁸, it is not far-fetched to envisage area code relief for Jamaica in the not too distant future, and 10-digit local dialling resulting from this. However, other NANP developments may precipitate 10-digit local dialling, before area code relief becomes necessary, for Jamaica. It is instructive to note that in practice, NPA relief planning commences at least 36 months before the anticipated exhaust of an NPA. A new NPA is selected and reserved at that time.
- 5.32 The implementation of an area code overlay requires that at the time of implementation there exists mandatory 10-digit dialling for every telephone call within and between all area codes in the geographic area to be covered by the overlay area code. Mandatory 'local' 10-digit dialling is the next logical step from 'local' 7-digit and local 10-Digit/7-Digit permissive dialling.

Dialling Principles for a Competitive Market

- 5.33 An efficient and uniform dialling procedure by which a customer on one network can access another customer on an interconnected network is the most basic and fundamental objective of the interconnection regime laid down in Part V of the Telecommunications Act 2000. In particular, Section 30 states, inter alia,

“.....a dominant public voice carrier shall provide interconnection in relation to a public voice network in accordance with the following principles –

(a) the terms and conditions under which it is provided shall be –

I. on a non-discriminatory basis;

.....

A non-discriminatory dialling procedure, or dialling parity, is therefore a fundamental requirement of a non-discriminatory access in the interconnection regime.

- 5.34 The converse principle of a competitive market based upon this interconnection regime in the Act is that customers should be free to adjust their consumption based upon adequate information on price and quality. No provider of interconnection service should take on the role of protector of consumers' interest outside the existing legal framework for consumer protection and fair competition, especially where such conduct distorts the market in its favour and attracts the protests of competitors.

⁸ **Thousands-block Number Pooling** is a process by which the 10,000 numbers in a central office code (NXX) are separated into ten sequential blocks of 1,000 numbers each (thousands-blocks), and assigned/allocated separately. Thousand-block pooling allows telecommunications companies to return unused numbers in blocks of 1,000. Companies wanting additional numbers would then be assigned blocks of 1,000 numbers from the pool.

Change Impacts

Customer Impacts

- 5.35** C&WJ's elimination of 1+ dialling on all its domestic mobile calls, and later for fixed to fixed calling within its network, from all appearances, did not result in any significant degree of customer confusion. It is also reasonable to conclude that the costs associated with these changes were not burdensome.
- 5.35** C&WJ's fixed line customers currently are the ones that will be impacted by the elimination of 1+ dialling in terms of the provision of toll indications. However, the vast majority of calls that would require toll indications are the fixed to mobile calls, but mobile numbers are distinguishable from fixed numbers, as provided by the numbering plan allocation scheme, therefore the fixed line customers will have a broad indication that a higher charge will be incurred on such calls. For C&WJ fixed to 3rd party fixed calls, cost indications are less obvious from numbers. Customers will therefore need to learn which calls are toll versus non-toll by alternative means such as tone alerts or recorded announcements. Nevertheless, the Office does not perceive any significant social costs. The natural customer resistance to changing their familiar dialling habits is most likely to be off set by the convenience of dialling fewer digits.
- 5.36** The changeover to the UDDP standard will be implemented with minimum disruptions to consumers, as it will not necessitate change of subscriber numbers. Users will simply have to dial seven digits without the 1+ prefix for all domestic calls including fixed to mobile calls.

Network Impacts

- 5.37** Network considerations associated with the removal of 1+ dialling appear to be straightforward. Indeed, the very arrangement which allows for calls to be completed across networks using 7-digit dialling without a toll prefix is in place. The switching facilities which receive and process customer dialled digits are able to accept and properly interpret those digits, and route the call accordingly and, therefore, could accommodate almost any uniform dialling plan.
- 5.38** There may be initial costs to carriers to put in place desired alternative means of toll indication but there should be no additional recurrent costs.

CHAPTER 6: OFFICE PROPOSALS

- 6.1** The Office is mindful of the spirit of the Telecommunications Act 2000, which seeks to promote competition by facilitating entry to the telecoms market, in order to secure lower prices and higher quality services for telecommunications consumers and encourage the rapid deployment of new telecommunications technologies and innovative services.
- 6.2** The Office proposes to adopt a Uniform Domestic Dialling Plan (UDDP) as the single dialling standard for domestic calls. Specifically, the Office proposes to require a standard 7-digit dialling for domestic calls within all and between any two networks without the use of a toll prefix such as the existing 1+ toll prefix.
- 6.3** The Office proposes the elimination of the 1+ prefix as a toll indicator for domestic calls and the substitution of a tone alert or recorded announcement, to be given after the required number of digits is received by the switching facilities, as a toll alert, to protect the interest of consumers.
- 6.4** The Office tentatively concludes that requiring the use of the UDDP Standard is appropriate because it would equate to dialling parity for all subscribers and provide a measure of certainty to competing carriers and service providers of competitive fairness and equity in the telecoms market.
- 6.5** The proposed policy outcomes on which the final rules would be based are summarized as follows:
1. Elimination of variations in dialling patterns for domestic calls in favour of a single national standard which requires the dialling of the last seven digits of a subscriber's 10-digit telephone number, and which comprises the 3-digit central office code followed by 4-digit station number .
 2. Elimination of the 1+ prefix, as a toll indicator for Domestic calls
 3. Use of the 1+ prefix to differentiate between 7-digit and 10-digit dialling
 4. The provision and preservation of a "toll indicator" for consumer protection, while reducing the number of dialled digit for domestic calls
 5. Mandatory uniform domestic dialling across all fixed and mobile networks in Jamaica
 6. Dialling parity for all subscribers
- 6.6** The Office seeks comment on the tentative conclusion that it will require use of the UDDP standard. Assuming that the Office does require the use of the UDDP

standard by carriers, the Office requests comments on whether the standard should be incorporated into rules on the basis of the policy outcomes proposed above.

6.7 Respondents are encouraged to comment on the foregoing Office proposals and the following specific issues:

- 1) whether all carriers and service providers throughout Jamaica should be required to permit customers to dial the same number of digits to make a domestic or regardless of the identity of the customer's or the called party's exchange carrier.
- 2) Whether carriers should provide an alternative toll indicator, such as a tone signal or a recorded announcement, in lieu of the 1+ prefix.
- 3) What standards should be applied to any call connection delays, inclusive of that from any message or non-message alerts that carriers may introduce in their networks after the customer has entered the required digits for completion of the call.

6.8 Respondents are also encouraged to propose other options or alternatives. The responses should provide a thorough explanation of the benefits of the options or alternatives and an explanation of how these serve the goals that the Office has outlined. Comments are