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#### 1.0 Scope and Overview

Currently Canada participates in the North American Numbering Plan (NANP)<sup>1</sup> which is the numbering plan used by the 20 nations sharing Country Code 1 under the International Telecommunication Union ITU-T Recommendation E.164, "The international public telecommunication numbering plan" (ITU-T Rec. E.164).

This document defines a standard that specifies the format and values of telephone numbers in Canada, called the Canadian Numbering Plan, and the associated Canadian Dialling Plan used on the Canadian portion of the worldwide Public Switched Telephone Network (PSTN). It also identifies other numbering resources that are used in the PSTN, and describes these uses in relation to the Canadian Dialling Plan.

The purpose of this document is to consolidate the information contained in other North American and Canadian industry documents into a single reference document for the Canadian Numbering Plan and Dialling Plan.

#### 2.0 Introduction

#### 2.1. International Numbering Standards and Conventions

The ITU Telecommunication Standardization Sector (ITU-T) is one of the three Sectors of the International Telecommunication Union, a Specialized Agency of the United Nations with headquarters in Geneva, Switzerland. The ITU-T studies technical, operating and tariff questions, and produces recommendations and other publications that are used to guarantee the interconnectivity and interoperability of networks and enable telecommunication services to be provided worldwide. The ITU-T website is at http://www.itu.int/ITU-T/index.html

A **Numbering Plan** specifies the format and structure of numbers including any segments used for identification, routing, and charging capabilities (e.g., Country Codes, Area Codes and CO Codes used for geographic routing and distance sensitive charges).

A **Dialling Plan** is the combination of digits and additional information that defines the method by which the Numbering Plan is used and may include prefixes, suffixes and additional information supplemental to the Numbering Plan required to complete the call (e.g., dialling the prefixes "0", "1" and "011" for operator assistance, direct dialling within a Country Code, and direct dialling between Country Codes).

<sup>&</sup>lt;sup>1</sup> The NANP is the basic numbering plan for the telecommunications networks in the following 20 countries in Country Code 1: Anguilla, Antigua & Barbuda, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, Sint Maarten, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago, Turks & Caicos Islands, and the United States of America (including Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa).

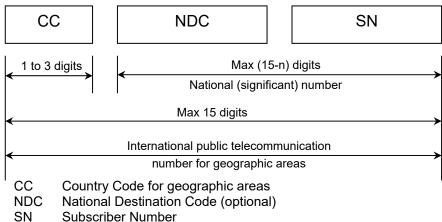
Canadian telephone numbers generally follow international standards and Canada is compliant with the major recommendations that are contained in ITU-T Rec. E.164 (See section 2.1 for a description of the E.164 Numbering Plan). Participation is essential to allow International Direct Distance Dialling (IDDD).

ITU-T Rec. E.164 provides three categories of telephone numbers for international public telecommunications:

- 1. Geographic Areas
- 2. Global Services
- 3. Networks

The maximum quantity of digits in the ITU-T Rec. E.164 Numbering Plan is 15. The first field in the ITU-T Rec. E.164 International Numbering Plan is the Country Code which can be from 1 to 3 digits in length. Country Codes may be assigned to Geographic Areas, Global Services or shared among Networks. Canada is part of Country Code 1 (previously called World Zone 1) and shares the single digit Country Code "1" with 19 other nations located primarily in North America. The NANP currently uses 11 digits consisting of a single digit Country Code and a 10-digit National (significant) Number, as indicated below.

# Structure of the international public telecommunication number according to ITU-T Recommendation E.164



SN Subscriber Number

n Number of digits in the country code

#### Canadian numbering plan alignment with ITU-T Recommendation E.164

CC = 1 (single digit) NDC = Numbering Plan Area (NPA) Code (3 digits) SN = CO Code plus Line Number (7 digits) n = 1 digit

In the NANP, the NPA Code is generally equivalent to the NDC contained in ITU-T Rec. E.164, and the Central Office (CO) Code and Line Number are generally equivalent to the Station Number contained in ITU-T Rec. E.164.

The ITU-T Rec. E.164 International Numbering Plan requires that all participating nations ensure that their carriers provision their networks to accommodate up to a maximum of 15 digits.

## 3.0 Historical References and Perspectives

#### 3.1. NANP Responsibilities

AT&T was instrumental in the development and evolution of the numbering portion of the NANP from its inception in 1947 until the breakup of AT&T (Modification of Final Judgment) on January 1, 1984. The NANP was coordinated by Bell Communications Research Corporation (Bellcore) from 1984 until the enactment of the U.S. Telecommunications Act of 1996 (TA-96). In this time period, Bellcore maintained and coordinated the evolution of the NANP by working with telecommunications regulators and industry forums such as the Industry Carriers Compatibility Forum (ICCF) sponsored by the Alliance for Telecommunications Industry Solutions (ATIS).

Until 1996, the Industry Numbering Committee (INC) operated as a committee of the ICCF. Since 1996, the INC, operating in cooperation with the NANP area national telecommunications regulators, developed industry consensus guidelines and recommendations for the assignment and administration of NANP numbering resources. These national regulators include the Federal Communications Commission (FCC) in the USA and the Canadian Radio-television and Telecommunications Commission (CRTC) in Canada.

In Canada, the Canadian Steering Committee on Numbering (CSCN) was established by Industry Canada in 1991 with a mandate to develop strategies and guidelines for the efficient, effective and equitable use of numbering resources in Canada, to provide input and support to Industry Canada on Canadian policies related to numbering, and provide guidance to the Canadian Numbering Administrator (CNA) on the administration of the numbering plan resources in Canada based on agreed guidelines and procedures.

The Canadian Incumbent Local Exchange Carriers (ILECs) acted separately as the CO Code Administrators in the NPAs where they operated for many years until the role was transferred to an independent third party administrator in 1999. The Canadian Incumbent Local Exchange Carriers (ILECs) acted collectively under the Trans Canada Telephone System (TCTS), Telecom Canada, and Stentor organizations to perform numbering administration in Canada to about 1994 at which time the role was transferred to Industry Canada. In 1997, the numbering administration role was transferred to the CRTC and, subsequently, in 1999 was transferred to the new independent Canadian Numbering Administrator.

In July 1998, under the amended Telecommunications Act, the CRTC was granted authority to administer numbering resources in Canada. Industry Canada remains responsible for coordinating the Canadian position on numbering with the ITU.

Section 46.1 through 46.4 of the *Telecommunications Act* grants the CRTC the authority to administer numbering resources in Canada.

46.1 The Commission may, if it determines that to do so would facilitate the interoperation of Canadian telecommunications networks,

(a) administer

 (i) databases or information, administrative or operational systems related to the functioning of telecommunications networks, or
(ii) numbering resources used in the functioning of telecommunications networks, including the portion of the North American Numbering Plan resources that relates to Canadian telecommunications networks; and

(b) determine any matter and make any order with respect to the databases, information, administrative or operational systems or numbering resources. 1998, c. 8, s. 6.

46.2 (1) The Commission may, in writing and on specified terms, delegate any of its powers under section 46.1 to any person, including any body created by the Commission for that purpose.

(2) For the purposes of sections 62 and 63, a decision of a delegate is deemed to be a decision of the Commission.

(3) For greater certainty, a delegation of powers is a decision of the Commission.

(4) The Commission may, in writing, revoke a delegation of powers. A revocation is deemed not to be a decision of the Commission. 1998, c. 8, s. 6.

46.3 (1) Subject to subsection (2), a delegate may charge rates for exercising delegated powers.

(2) The Commission may regulate the rates charged by a delegate, whether by requiring pre-approval of the rates or otherwise.

(3) Notwithstanding the Financial Administration Act, money collected by a delegate is deemed not to be public money. 1998, c. 8, s. 6.

46.4 The Commission may regulate

(a) the manner in which any person provides services relating to any of the matters referred to in paragraph 46.1(a); and

(b) the rates, whether by requiring pre-approval of the rates or otherwise, charged by the person. 1998, c. 8, s. 6.

Currently the CSCN is responsible for addressing Canadian numbering issues and developing number planning and implementation strategies for the Canadian telecommunications industry under CRTC regulatory oversight. The CSCN is an open public forum established as a subtending Working Group of the CRTC Interconnection Steering Committee (CISC). The CISC is a committee comprised of various industry representatives that was initiated to facilitate implementation of Telecom Decision CRTC 97-8, Local Competition, and continues to exist to address various telecommunications industry issues. For further information, see the CSCN Adjunct to the CISC Administrative Guidelines which is available at http://www.crtc.gc.ca/cisc/eng/cisf3fg.htm.

In Country Code 1 the NANP numbering resources at the NPA level are administered by the NANP Administration (NANPA), which is contracted by the U.S. federal government to a neutral third party. In Canada, NANP numbering resources used in or assigned to Canada, including NPAs and other numbering resources, are administered by the CNA, which is a neutral third party operating under CRTC regulatory oversight under a contract with the Canadian Numbering Administration Consortium (CNAC).

The CNAC is a company that was incorporated on June 5, 1998 under the Canada Business Corporations Act and operates under the regulatory oversight of the CRTC. The primary role of the CNAC is to administer the selection and funding of a neutral administrator who performs the functions of Canadian numbering administration for the Canadian telecommunications industry. In addition, the CNAC pays the Canadian share of the costs of the North American Numbering Plan Administration (NANPA). The cost of performing this function is funded by Canadian telecommunications service providers (TSPs) who benefit from numbering resources within Canada. For additional information see http://www.cnac.ca/cnac/cna\_consortium.htm.

# 3.2. Historical NANP Evolution

٠	1947:	Initial NANP developed		
		NANP format:	N (0 or 1) <sup>2</sup> X – NNX – XXXX	
			where $N = 2$ to 9 and $X = 0$ to 9.	

Initially the NN digits in the NNX portion of a NANP number had "exchange" names whose first two letters corresponded to letters associated with the NN digits on North American telephone dials, e.g. 23 could be BEechwood, BElmont, or CEdar. 7-digit NNX-XXXX numbers were represented as 2-letter + 5-digit numbers (2L-5D), so that 736-5000 could be expressed as PE.6-5000 or Pennsylvania 6-5000. The use of the 2L-5D representation was phased out following the introduction of All Number Calling in 1959.

- 1973 Initial introduction of Interchangeable CO Codes NANP format: N (0 or 1)<sup>2</sup>X – NXX – XXXX
- 1995: Interchangeable NPA codes implemented NANP format: NXX – NXX – XXXX

The theoretical capacity of the current 10-digit NANP format is 6.4 billion numbers (i.e., 800 Area Codes X 800 CO Codes X 10,000 Telephone Numbers). At the time this version of the Plan was developed, the April 2022 North American Numbering Plan (NANP) Exhaust Analysis forecast that the NANP would exhaust in 2055. See the NANPA website at: <u>www.nanpa.com</u>, for additional information.

In the future it is uncertain how the NANP format will evolve to meet the expected increased demand for telephone numbers. In recent years the INC and the CSCN have recommended to the governments of the nations participating in the NANP that the NANP be expanded from 10 to 12 digits when additional numbering resources are required. The INC and CSCN have recommended that future expansion of the NANP be done by adding a new 4th digit at the end of the NPA and a new 5th digit at the beginning of the CO Code. The new NANP format would be: NXXX-XNXX-XXXX. Expansion would be preceded by the implementation of 10-digit dialling for both local and toll calls (elimination of 1+ for toll). At this time, the governments of Canada and the other 19 nations in the NANP have not yet agreed on an expansion plan; however it is expected that the recommendation to expand from 10 to 12 digits will be approved should the need arise. For additional information see the CSCN Report to CRTC on NANP Expansion CNRE008A.doc which is available at http://www.crtc.gc.ca/cisc/eng/cisf3ff.htm.

<sup>2</sup> The use of the parentheses in this instance indicates that the central digit of the Area Code could only be "1" or "0".

## 4.0 Definition of a Telephone Number Used in Canada

#### 4.1 Canadian Telephone Number Format and Values

The numbering plan used in Canada and the other 19 nations served by Country Code 1 is known as the NANP. A Canadian telephone number consists of the Country Code 1 plus a 10-digit NANP telephone number. Current NANP telephone numbers are ten digit numbers that consist of the following three basic parts:

- a) A 3-digit Numbering Plan Area (NPA) code, commonly called the Area Code.
- b) A 3-digit Central Office (CO) Code, sometimes referred to as the NXX code. The term Central Office (CO) Code is used in this document because of its long standing use and because the NXX format is now used for both CO Codes and NPA Codes.
- c) A 4-digit Line Number sometimes referred to as a station number.

The current format of a ten digit NANP Number is NXX-NXX-XXXX where N = digits 2 through 9, and X = any digit of 0 through 9. The digit positions in the NANP format, excluding the Country Code, can be identified by alphabetical characters using the following format ABC-DEF-GHIJ, where ABC is the NPA, DEF is the CO Code, and GHIJ is the Line Number.

#### Therefore:

A complete Canadian telephone number is an eleven digit number that contains the Country Code "1" plus the 10-digit NANP telephone number. When written or printed, the three groups of digits comprising the 10-digit NANP number should be visually separated by dashes, spaces or periods in accordance with ITU-T Recommendation E.123 "Notation for national and international telephone numbers, e-mail addresses and Web addresses" to make them easier to recognize and remember (e.g., NXX NXX-XXXX). When a Canadian telephone number is written or printed as an international number, the NANP number should be prefixed by "+1" and a space (e.g., +1 NXX NXX-XXXX).

# 5.0 The Canadian Dial Plan

In Canada, there is no single Dial Plan that applies universally in all areas. In most locations (i.e., Numbering Plan Areas) where a single NPA code is in use, local calling within a defined geographic area called the Local Calling Area (LCA), can generally be done by dialling only the last 7 digits (7D) of the NANP number (i.e., the CO Code and Line Number). In those locations some telecommunications service providers may also permit callers to dial 10 digits (10D) for local calls on a permissive dialling basis. In some wireless networks, 1+ 10 digit dialling may also be allowed on a permissive basis for local calls in addition to standard 10 digit local dialling. In locations where overlay NPA Codes have been implemented (i.e., more than one NPA Code is in use within a

Numbering Plan Area) or where local calling crosses an NPA boundary, local calling generally requires dialling the full 10-digit NANP number (i.e., the NPA, CO Code and Line Number). In some locations local calls across an NPA boundary may be dialled using only the last 7 digits of the NANP number (i.e., the CO Code and Line Number); however this requires CRTC approval and special CO Code assignment practices to ensure that dialling conflicts are not created by assigning two identical CO Codes in different NPA Codes in the LCAs. 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 (1+10D) for direct dialled calls, or dialling the prefix 0 plus the 10-digit NANP number (0+10D) for operator assisted calls (see section 6.1 for further information regarding prefix dialling requirements). For long distance calling outside Country Code 1, the Dial Plan is the appropriate international calling prefix (e.g., 01 and 011) plus the international telephone number. See the Appendix "Canadian Dialling Plan" for additional information.

In the late 1990s, the INC and CSCN examined the need for a Uniform Dialling Plan (UDP) throughout the NANP area. After consideration of many options, the INC and CSCN both concluded that adoption of a UDP would be beneficial for the industry and customers. The INC and CSCN recommended to the NANP area nations' regulators that a Uniform Dialling Plan be adopted. The benefits of a Uniform Dialling Plan include reduced customer confusion, particularly in today's mobile society, and support for a consistent, fair and equitable competitive environment. Specifically the INC and CSCN recommended that 10-digit dialling be adopted as the UDP for both Local and Toll (i.e., long distance) calling. The INC and CSCN noted that implementation of the recommendation requires regulatory approval and resolution of the need for "1+" as a toll indicator. In Canada, some carriers supported the implementation of a toll warning indicator tone when additional toll charges for long distance calls would apply.

The INC suggested that migration to the UDP should begin by first adopting the following dialling arrangements as interim steps:

- 1. 10-digit local dialling within the Home NPA with 1+ 10-digit dialling on a permissive basis
- 2. 10-digit local dialling to a Foreign NPA with 1+10-digit dialling on a permissive basis

See the Glossary for definitions of Home NPA and Foreign NPA.

In conjunction with the migration to the UDP, the INC recommended that the industry address the need for the continued use of a toll indicator. The successful completion of the above steps would allow for the implementation of the 10-digit dialling UDP throughout the NANP area.

All other numbers used by telephone systems fall in the category of prefixes or access codes. All of the numbers, access codes and prefixes comprise the Canadian Dialling Plan found in the Appendix.

## 6.0 Other Codes

The industry has always employed other codes to access certain capabilities or call types.

#### 6.1 Prefixes

The most commonly used prefixes are the digit 1 preceding a sent paid toll call, and the digit 0 which precedes an operator handled toll call. The current list of commonly used prefixes is shown below. Prefixes are usually deleted or used in the originating switch before the NANP number digits are used to route the call to its final destination.

Prefix	Use of Code
0+ NANP 10-digit Number	Person Paid Collect Special (PPCS) Call
01+ International Number	International PPCS Call
011 + International	International Station to Station Sent Paid
Number	(SSSP) Call
1+ NANP 10-digit Number	Toll Access for SSSP Calls

The wireless telephone industry does not always use standard NANP wireline prefixes or access codes. For example, in some wireless networks based on the Global System for Mobile communications standard (GSM), the "+" character dialled before the Country Code and National Number provides uniform dialling for local, toll and international calls, and avoids the need for country-dependent prefixes.

# 6.2 Operator Access Codes

Two special codes can be dialled to access operators, as per the table below:

Operator Access Code	Use of Code
0	Telephone Company Operator
00	Long Distance Carrier Operator

# 6.3 NPA and CO Codes 000-199

Using the values 0 and 1 in the "A" or "D" digit positions of a NANP number would create the NPA and CO Codes in the series 000-199. These codes are not part of the currently defined NANP format for either the NPA or CO Code portions of a NANP number, and therefore are not publicly diallable or routable NANP telephone numbers (as the NPA and CO Code format is NXX where N= 2 to 9 and X = 0-9, the 0XX and 1XX NPA and CO Codes are not NANP numbers). 000-199 were excluded from the original NANP format and this exclusion has continued to date.

However, the NANP-wide telephone industry uses these codes for various networking and operational purposes including, but not limited to, Test Codes,

Inward Operator Codes, Special Billing Numbers, Revenue Accounting Office (RAO) Numbers and special routing of calls.

Various switching systems have employed software checks that block calls to and from numbers with the codes 000-199. These software checks were installed to minimize fraud. In addition, Operator Services switching systems have software to validate credit card calls that utilize these codes. Numbers utilizing the codes 000-199 are not customer diallable.

# 6.4 Star Code \*

The star code\* is standardized within the PSTN and used for special dialling and communications purposes.<sup>3</sup> It is important that consistent terminology be known and used when referring to this character. The \* should be called the "star" and not "asterisk". Currently, the \* character has the following general applications:

The standard use of the star (\*) is as a prefix when dialling a Vertical Service Code (VSC). VSCs are customer-dialled codes that provide access to features and services provided by local exchange carriers, interexchange carriers, commercial mobile radio service (CMRS), etc. Services invoked by VSCs include call forwarding, automatic callback, customer originated trace, and many others. The format of a VSC is \*XX or \*2XX (Dual Tone Multi Frequency DTMF telephone) and 11XX or 112XX (rotary dial telephone). For example, call forwarding is activated by dialling \*72 or 1172. VSCs are assigned according to guidelines proposed by the CSCN and approved by the CRTC, and are listed on the CNA web site at www.cnac.ca. Currently there is some inconsistency in the use of VSCs for specific features or services in different carrier networks. In this application, the \* indicates to the switching system that the digits following specify a certain desired feature or service. Access to vertical services from rotary dial telephones can be accomplished by dialling the digits "11" prior to the XX or 2XX digits. The local serving switch translates the "11" to simulate the star key in stored program controlled switches.

Vertical Service Code Format	Use of Code
*XX (*2XX)	Vertical Service Code Access
11XX (112XX)	Vertical Service Code Alternate (Permissive)
	Access

Vertical Service Codes are NANP numbering resources. They are administered by NANPA. The current agreed allocations for VSCs are available at the web site: http://www.nanpa.com/

Once a connection is made via the PSTN, the star code \* may be used for secondary signaling purposes with equipment attached to the PSTN. For example, the \* code may be used within a carrier's network to provide an error

<sup>3</sup> AT&T Technical Advisory #3, NPL 81-09-27, Issue 2, December 1, 1981

correcting function for secondary dialling by customers of various series of digits on a sequential basis in response to prompting from a network element.

# 6.5 Number Sign #

The number sign # code is standardized within the PSTN and used for special dialling and communications purposes. It is important that consistent terminology be known and used when referring to this character. The # should be called the "number sign" and not "pound", "octothorpe", "hash" or "sharp". Currently, the # character has the following general application.

The standard use of the number sign # is as an end-of-dialling indicator or conclude the present action and proceed to the next action indicator. This end-of-dialling use exists today, and avoids the need for invoking a timing period in certain types of switching systems. The conclude-and-proceed use also occurs in some telephone credit card service applications where the customer wants to indicate that the present call is over and a new call is about to be placed (e.g., sequence calling).

Another historical use of the number sign # was as the first character when dialling a call that is a wideband or other data call requiring special treatment. In certain types of data calls, both an initial and a concluding # may be required. This was only used in networks with Multi-Frequency (MF) signaling.

There are also some non-standard uses of the # sign for Personal Identification Number (PIN) calling features. The # sign is also used in ancillary equipment attached to the PSTN. An example of this is equipment used to provide voice mail services.

# 6.6 N11 Codes

N11 Codes are assigned by the CRTC in Canada and by the FCC in the United States. In Canada, the CRTC assigns the N11 codes for specific applications in accordance with criteria established by the CRTC in Telecom Decision CRTC 2001-475 Allocation of 3 digit dialling for public information and referral services. Geographic NPAs and CO Codes in format N11 are not assignable in Country Code 1 to avoid causing customer confusion and network routing difficulties.

# **Canadian N11 Service Codes**

N11 Code	Use of Code
211	Public Information and Related Services <sup>4</sup>
311	Non-Emergency Municipal Government Services <sup>5</sup>
411	Local Directory Assistance
511	Weather & Traveller Information <sup>6</sup>

<sup>&</sup>lt;sup>4</sup> Telecom Decision CRTC 2001-475

<sup>5</sup> Telecom Decision CRTC 2004-71

N11 Code	Use of Code
611	Repair Service
711	Access to Message Relay Service (MRS) by the deaf <sup>7</sup>
811	Non-urgent Health Telephone Triage Services <sup>8</sup>
911	Emergency

#### 6.7 Easily Recognizable Codes (ERCs)

Easily Recognizable Codes (ERCs) are NPA Codes that due to their unique, recognizable digit pattern (e.g., common 'B' and 'C' digit; codes with the same second and third digits) convey certain unique knowledge regarding a call to a telephone number other than the number being dialled (e.g., 800+). ERCs include N00 NPA Codes, codes for other special services, e.g. toll-free service, and N11 Codes. N11 Codes are described in section 6.6 above. .N00 NPA Codes and toll-free codes are allocated by the Alliance for Telecommunications Industry Solutions' (ATIS) Industry Numbering Committee (INC).

ERC	Status or Use of Code	
200	Unassigned	
300	Unassigned	
400	Unassigned	
500	Personal Communications Services – Note 1	
600	Canadian Non-Geographic Services – Note 2	
700	IXC Intra-Network Services – Note 3	
800	Toll Free Services	
900	Pay-Per-Call Information Services	

#### N00 NPA Codes

Note 1: NPA 521, 522, 523, 533, 544,566, 577 and 588 are also assigned for Personal Communications Services growth. In May 2012 (INC ssue 703), the following NPAs were set aside to augment the 5YY resources: 524, 525, 526, 527, 528, 529, 532, 538, 542, 543, 545, 547, 549, 552, 553, 554, 556, 569, 578 and 589. In September 2013 (INC Issue 758), additional NPAs were set aside for future Non-Geographic 5XX-NXX Code Use: 550, 535, 546, and 558.

Note 2: Non-Geographic NPAs also include 622, 633, 644, 655, 677, and 688. These are referred to as "6YY" NPAs. NPA 699 has been reserved by the NANPA and is not considered for use as a Non-Geographic NPA at this point in time.

Note 3: NPA 700 numbers can be used independently by each Interexchange Carrier (IXC) for applications and customers on its own network. Therefore, different customers on different IXC networks may be assigned the same NPA 700 number.

# **Toll-free Service Codes**

ERC	Status	
800	In service	
888	In service	

6 Telecom Decision CRTC 2006-44

7 See CRTC letter dated August 4, 1993 from the CRTC Secretary General to the Chairman of the CSCN.

8 Telecom Decision CRTC 2005-39

ERC	Status
877	In service
866	In service
855	In service
844	In service
833	In service
822	Allocated but not in service
880	Reserved - set aside for next series of toll free codes
881	Reserved - set aside for next series of toll free codes
882	Reserved - set aside for next series of toll free codes
883	Reserved - set aside for next series of toll free codes
884	Reserved - set aside for next series of toll free codes
885	Reserved - set aside for next series of toll free codes
886	Reserved - set aside for next series of toll free codes
887	Reserved - set aside for next series of toll free codes
889	Reserved - set aside for next series of toll free codes

In addition to the ERCs identified above, there is an additional quantity of ERCs that have been assigned or reserved for Canada's future use. At the suggestion of the CSCN and with CRTC approval and direction, a pool of six (6) NPA Codes was reserved by the NANPA for future use as Canadian Non-Geographic Relief NPA Codes. These NPA Codes are subject to assignment for use in Canada based upon the Canadian Adjunct to the INC NPA Allocation Plan and Assignment Guidelines.

ERC	Status	
600	In service	
622	In service	
633	Reserved	
644	Reserved	
655	Reserved	
677	Reserved	
688	Reserved	

# Canadian Non-Geographic NPA Codes (ERCs)

# 6.8 Carrier Identification Codes (CICs)

CICs are 4 digit codes used mainly to route long-distance calls to a customer's IXC of choice. The CIC is associated with the customer's line for 1+ and 0+ calls. A customer may also dial the CIC as part of a Carrier Access Code number. In Canada, the CNA, in cooperation with NANPA, conducts the assignment of CICs to IXCs, Switchless Resellers and LECs.

# 6.9 Carrier Access Codes (CACs)

To select an IXC for a call, customers can dial an access code that contains a CIC. The format of this CAC is either 101XXXX or 950XXXX, where the XXXX is the CIC. CAC 101XXXX is used as a prefix to the normal dialling sequence for a

toll call. CAC 950XXXX requires secondary dialling that includes an authorization code and the called number.

Carrier Access Code	Use of Code
101XXXX	Carrier Access Code (CAC), Feature Group "D"
950XXXX	Carrier Access Code (CAC), Feature Group "B"

#### 6.10 Wireless Sector Special Numbering Requirements

The wireless telephone industry also has other numbering requirements, separate from the number associated with the wireless subscriber. Most of these requirements are necessitated by wireless roaming and access to emergency services via dialling 9-1-1.

Acronym	Description	Format	Comments
ESRD	Emergency Service Routing Digit	10-digit NANP # in format NXX- NXX-XXXX	Identifies the cell site and sector from which a Wireless E9-1-1 call originates. In Canada, in each geographic NPA, the 511- XXXX and 211-XXXX series of telephone numbers have been allocated for use as ESRDs.
IMSI	International Mobile Station Identity	NXX-XXX- XXXXXXXXXX	A non-diallable number that uniquely identifies a mobile station used in wireless networks that conform to ITU-T Recommendation E.212. An IMSI consists of a Mobile Country Code (3 digits) + Mobile Network Code (3 digits) + Mobile Station Identification Number (9 digits in North America).
IRM	International Roaming Mobile Identification Number	1/0-XXX-XXX- XXXX	A 10-digit MIN that is a transitional terminal identifier for international CMRS Roaming.
MDN	Mobile Directory Number	NPA-NXX-XXXX	Wireless subscriber's 10-digit NANP telephone number.
MIN	Mobile Identification Number	NXXNXX-XXXX	A non-diallable number that uniquely identifies a mobile station used with most wireless networks based on CDMA (Code Division Multiple Access), TDMA (Time Division Multiple Access) and AMPS (Advanced Mobile Phone System). A MIN consists of a MIN Block Identifier (6 digits) + Mobile Subscriber Number (4 digits).
MSID	Mobile Station Identity	10 or 15 digits	A non-diallable number used to uniquely identify a mobile station; the MSID is either a MIN or an IMSI.

# 7.0 Acronyms and Abbreviations

2L-5D	2 Letters + 5 Digits Telephone numbers
AMPS	Advanced Mobile Phone System
AT&T	American Telephone and Telegraph
ATIS	Alliance for Telecommunications Industry Solutions
CAC	Carrier Access Code
CC	Country Code
CDMA	Code Division Multiple Access
CIC	Carrier Identification Code
CISC	CRTC Interconnection Steering Committee
CMRS	Commercial Mobile Radio Services
	-
CNA	Canadian Numbering Administrator
CNAC	Canadian Numbering Administration Consortium
CO Code	Central Office Code (NXX)
CRTC	Canadian Radio-television and Telecommunications Commission
CSCN	Canadian Steering Committee on Numbering
DDD	Direct Distance Dialling
DTMF	Dual Tone Multi Frequency
ERC	Easily Recognizable Code
ESRD	Emergency Service Routing Digit
FCC	United States Federal Communications Commission
GSM	Global System for Mobile communications standard; originally
	from Groupe Spécial Mobile
ICCF	Industry Carriers Compatibility Forum
IDDD	International Direct Distance Dialling
IMSI	International Mobile Station Identity
INC	ATIS-sponsored Industry Numbering Committee
IRM	International Roaming Mobile Identification Number
ITU	International Telecommunication Union
ITU-T	ITU Telecommunication Standardization Sector
IX	Interexchange
IXC	Interexchange Carrier
LCA	Local Calling Area
MDN	Mobile Directory Number
MF	Multi-Frequency
MIN	Mobile Identification Number
MRS	Message Relay Service
MSID	Mobile Station Identity
NANP	North American Numbering Plan
NANPA	North American Numbering Plan Administration
NDC	National Destination Code
NPA	Numbering Plan Area (Area Code)
PIN	Personal Identification Number
PPCS	Person to Person, Collect and Special
PSTN	Public Switched Telephone Network
RAO	Revenue Accounting Office
SN	Station Number
SSSP	Station to Station Sent Paid
TDMA	Time Division Multiple Access
UDP	Uniform Dialling Plan

USITA	United States Independent Telephone Association
USTA	United States Telecom Association
VSC	Vertical Service Code

# 8.0 Glossary of Major Terms

Central Office Code (CO Code)	The D-E-F digits of the 10-digit NANP number in a telephone number. Central Office Codes (also sometimes referred to as the NXX) are in the format NXX, where N is a number from 2 to 9 and X is a number from 0 to 9.	
Foreign NPA	Foreign NPA means a NANP geographic Numbering Plan Area (NPA) that is any NANP NPA other than the Home NPA. See Home NPA definition.	
Foreign NPA Code	Foreign NPA Code means, depending on the context in which it is used, either a) a geographic NPA Code that serves a Foreign Numbering Plan Area (NPA) (Canadian NPA Relief Planning Guideline and Canadian Central Office Code (NXX) Assignment Guideline), or b) a geographic NPA Code that is not the NPA Code of the calling party's 10-digit telephone number (Canadian Numbering Plan & Dialling Plan). See Home NPA Code.	
Home NPA	Home NPA Code means, depending on the context in which it is used, either a) a geographic NPA Code(s) that serves an exhausting Numbering Plan Area that requires relief (Canadian NPA Relief Planning Guideline), or b) a geographic NPA Code serving the Home NPA (Canadian Central Office Code (NXX) Assignment Guideline), or c) the geographic NPA Code of the calling party's 10- digit telephone number, or, when roaming, a geographic NPA Code associated with the NPA from which a wireless calling party is originating a call when the call is originated outside the NPA served by the geographic NPA Code of the caller's 10-digit telephone number (Canadian Numbering Plan & Dialling Plan). See Foreign NPA Code.	
Home NPA Code	Home NPA Code means, depending on the context in which it is used, either a) a geographic NPA Code(s) that serves an exhausting Numbering Plan Area that requires relief (Canadian NPA Relief Planning Guideline), or b) a geographic NPA Code serving the Home NPA (Canadian Central Office Code (NXX) Assignment Guideline), or c) the geographic NPA Code of the calling party's 10- digit telephone number, or, when roaming, a geographic NPA Code associated with the NPA from which a wireless calling party is originating a call when the call is originated outside the NPA served by the geographic NPA Code of the caller's 10-digit telephone number (Canadian Numbering Plan & Dialling Plan). See Foreign NPA Code.	

North American Numbering Plan (NANP)	The North American Numbering Plan is the basic numbering plan for the Public Switched Telephone Network in the following 20 countries in Country Code 1 (formerly known as World Zone 1): Anguilla, Antigua & Barbuda, Bahamas, Barbados, Bermuda, British Virgin Islands, Canada, Cayman Islands, Dominica, Dominican Republic, Grenada, Jamaica, Montserrat, Sint Maarten, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Trinidad & Tobago, Turks & Caicos Islands, and the United States (including Puerto Rico, the U.S. Virgin Islands, Guam, the Commonwealth of the Northern Mariana Islands and American Samoa). The format of the NANP follows International Telecommunications Union (ITU) standards as detailed in Recommendation E.164, or as amended. The NANP format currently consists of 10-digits in the format NXX- NXX-XXXX where N = 2 to 9 and X = 0 to 9. The digit positions in the NANP may be identified by alphabetical characters using the following format ABC-DEF-GHIJ where ABC is the Area Code or Numbering Plan Area (NPA), DEF is the Central Office Code or NXX (CO Code), and GHIJ is the Line Number.
Numbering Plan Area (NPA)	A Numbering Plan Area (NPA) is a discrete geographic area, within the area served by the NANP, to which one or more Geographic NPA Codes may be assigned.
NPA Code	An NPA Code (also called an area code) is a three-digit code that occupies the A, B, and C positions in the ten-digit NANP format. NPA Codes are of the form NXX, where N represents any digit 2-9 and X represents any digit 0-9. In the NANP, NPA Codes are classified as either geographic or non-geographic as follows: 1) A Geographic NPA Code is an NPA Code which is used to serve a discrete Numbering Plan Area (NPA) within the NANP. 2) A Non- Geographic NPA Code is an NPA Code that does not correspond to a discrete Numbering Plan Area (NPA) within the NANP. 2) A Non- Geographic NPA Code is an NPA Code that does not correspond to a discrete Numbering Plan Area (NPA) within the NANP, but which is instead assigned for a service with attributes, functionalities or requirements that transcend specific individual Geographic NPA boundaries. For example, Geographic NPA Code 204 serves the Numbering Plan Area comprised of the province of Manitoba, whereas Non-geographic NPA Code 800 can be used to provide toll- free services throughout the entire NANP area.
Public Switched Telephone Network	The Public Switched Telephone Network is composed of all transmission and switching facilities and signal processors supplied and operated by all telecommunications common carriers for use by the public. Every station on the PSTN is capable of being accessed from every other station on the PSTN via the use of NANP numbers.

# APPENDIX – CANADIAN DIALLING PLAN

# Table 1 – Quantity of digits dialled

QUANTITY OF DIGITS DIALLED	FORMAT	CALL TYPE	COMMENTS
No digits	Seizure (off hook) wireline only	Hot Line, Warm Line	Automatic connection to predetermined location (e.g., to local telecommunications service provider operator or business office)
One digit	0	Local Operator	Connection to local Telecommunications Service Provider's operator
Two digits	00	IXC Operator	Connection to originating customer's IXC's operator
Three digits	N11 *XX	Service Codes Vertical Service Codes	Connection to special services Activation of service, acknowledgment tone is returned to customer and dial tone is returned.
Four digits	11XX	Vertical Service from Dial Pulse phone (also works on DTMF phones)	Activation of service, acknowledgment tone is returned to customer and dial tone is returned.
	*XXX	Vertical Service Codes	Activation of service, acknowledgment tone is returned to customer and dial tone is returned.
Seven digits	NXX-XXXX	Local call, where 7- digit local dialling is in effect	Call completion
Ten digits	NXX-NXX-XXXX	Local call, where 10- digit local dialling is required, or offered on a permissive basis where 7-digit local dialling is in effect.	Call completion
Eleven digits	1 NXX-NXX-XXXX	SSSP call to another NANP location	Call completion
	0 NXX-NXX-XXXX	PPCS call to another NANP location	Call completion
Greater than eleven digits	01 + CC + NDC + number where CC = Country Code and NDC = National Destination Code (City Code)	International PPCS call	Call completion Note: The quantity of digits can be from 12 to 15 digits plus the Access Code.
	011 + CC + NDC + Number where CC = Country Code and NDC = National Destination Code (City Code)	International SSSP call	Call Completion Note: These calls can be from 12 to 15 digits plus the Access Code.