

Canadian Numbering Administrator Annual Report

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Canadian Numbering Administration Consortium (CNAC)

The Canadian Numbering Administration Consortium Inc. (CNAC) was formed in 1998, under the regulatory authority of the Canadian Radio-television & Telecommunications Commission (CRTC), to oversee numbering administration activities in Canada. CNAC is an incorporated entity with a Board of Directors, and shares held by many Canadian Telecommunications Service Providers (TSPs). The primary function of CNAC is to oversee and fund the numbering administration activities of the Canadian Numbering Administrator (CNA).

CRTC Interconnection Steering Committee (CISC)

The CISC is a committee comprised of various industry representatives that facilitates the implementation of Telecom Decision CRTC 97-8 Local Competition and related Commission decisions. The mandate of the CISC is to undertake tasks related to technological, administrative and operational issues on matters assigned by the CRTC or originated by the public, that fall within the CRTC's jurisdiction.

Canadian Steering Committee on Numbering (CSCN)

The CSCN is an open public forum established in 1991 to consider and resolve numbering resource issues. It became a subtending Working Group of the CISC in 1998. In addition to the mandate defined in Appendix 1, Item 6, of the CISC Administrative Guidelines, the CSCN is responsible for:

- a) Developing number planning and implementation strategies for the Canadian telecommunications industry;
- b) Ensuring the equitable assignment of numbering resources in a competitive Canadian telecommunications industry environment;
- c) Ensuring that adequate and appropriate numbering resources are always available for Canadian public telecommunication services and customers;
- d) Ensuring that the administration of numbering resources does not confer an undue advantage upon any entity nor inhibit the timely introduction of new telecommunication services or competition in these services in Canada;
- e) Ensuring the efficient, effective and equitable use of numbering resources in Canada including the assignment, administration, forecasting and conservation of these resources;
- f) Providing input and support on Canadian numbering policies to the CRTC via the CISC process;
- g) Promoting CISC-agreed positions on numbering issues in North American telecommunications industry fora; and,
- h) Recommending to the CRTC, via the CISC process, allocations of numbering resources for the Canadian telecommunications industry.

Canadian Numbering Administration (CNA) Organization

The CNA is a project of Information, Environmental and Engineering Solutions Division of Leidos Canada Inc. Glen Brown serves as both the Division Manager of Leidos Canada Inc. and Program Manager of the CNA. The CNA is located at 1516 – 60 Queen Street, Ottawa, Ontario.

The CNA's organizational structure is as follows:

- Program Manager, Canadian Numbering Administrator (Glen Brown)

The CNA Project Manager has the overall responsibility for the operation of the Canadian Numbering Administration. The Project Manager of the CNA is also responsible for the following numbering administration functions:

- Administers in Canada, North American Numbering Plan Administrator (NANPA) and Telcordia™ Technologies, Inc., dba iconectiv, administered resources;
 - Attends numbering fora meetings in Canada and the U.S. as needed;
 - Assists in Central Office (CO) Code Administration when required;
 - Chairs/facilitates NPA Relief Planning Committee meetings;
 - Acts as liaison with CNAC Board and Oversight Staff;
 - Chairs the CSCN if no other Chair is appointed;
 - Provides oversight for the management of the Canadian Numbering Administration System (CNAS);
 - Provides oversight for software development and acquisition;
 - Provides database support and develops database generated reports; and
 - Assists in CO Code Administration when required.
- Manager, Canadian CO Code Administration (Suresh Khare)

The CO Code Manager reports to the Project Manager of the CNA and is responsible for the following functions:

- Manages the administration of CO Codes across Canada;
 - Backup CSCN Chair;
 - Backup Relief Planning Committee Chair/facilitator;
 - Acts as Numbering Plan Area (NPA) Code Relief Planner; and,
 - Conducts the Canadian Numbering Resource Utilization Forecast (C-NRUF)
- Senior Project Manager Policy and Industry Notification (Fiona Clegg)

The Senior Project Manager Policy and Industry Notification reports to the Project Manager of the CNA and is responsible for the following functions:

- Administers in Canada, North American Numbering Plan Administrator (NANPA) and Telcordia™ Technologies, Inc., dba iconectiv, administered resources;
 - Manages the Industry Notification Process;
 - Acts as liaison with Telcordia™ Technologies, Inc., dba iconectiv, Telecom Routing Administration and the Common Interest Group on Routing and Rating;
 - Acts as backup CSCN Secretary and CSCN liaison when required;
 - Backup CSCN Chair;
 - Backup Relief Planning Committee Chair/facilitator;
 - Performs backup NPA Relief Planning Committee Secretary functions; and,
 - Assists in CO Code Administration when required.
- System Administrator (Kelly Walsh, David Comrie)

The System Administrator reports to the Program Manager of the CNA and is responsible for the following functions:

- Manages the Canadian Numbering Administration System (CNAS);
 - Administers software development and acquisition;
 - Provides database support and develops database generated reports; and
 - Maintains the CNA website.
- CO Code Administrators (Gerry Clermont, David Comrie and Natalie Lessard)

The CO Code Administrators report to the CO Code Manager and assign CO Codes in Canada as well as other administrative and data entry functions.

- CSCN/RPC Secretary (David Comrie)
 - Coordinate document control with internal CNA, CRTC staff and meeting participants;
 - Record meeting notes for CSCN and RPC meetings/conference calls; and,
 - Arrange meetings and conference calls
- Administrative Support (Sandi Mish)

Provides administrative support to the CNA staff.

Canadian Numbering Administrator Duties and Functions

A) CSCN Secretary

The CNA performs the duties of the CSCN Secretary in accordance with the CSCN Adjunct to the CISC Administrative Guidelines including:

- 1) Attend all meetings of the full CSCN and record the attendance and the proceedings of all such CSCN meetings and conference calls;
- 2) Maintain centralized files, including logs, of all CSCN documents;
- 3) Maintain current and accurate CSCN participant distribution list(s);
- 4) Prepare and ensure the timely distribution of the full CSCN meeting minutes; and
- 5) Perform such other duties as may be prescribed from time to time by the CSCN.
- 6) Sending CSCN Minutes, Agendas and other documents identified by the CSCN for posting to the CRTC CISC Website.

B) Central Office Code Administration including NPA Relief Planning

The CNA performs CO Code administration functions in accordance with the Canadian Central Office Code (NXX) Assignment Guideline (Canadian COCA Guideline) for geographic NPAs assigned for use in Canada including NPA Relief Planning functions in accordance with the Canadian NPA Relief Planning Guideline and the Canadian Adjunct to the INC NPA Allocation Plan and Assignment Guidelines.

The CNA also performs CO Code administration functions in accordance with the Canadian Non-Geographic Code Assignment Guideline for non-geographic NPAs assigned for use in Canada (i.e., 6YY).

C) CNA Role in NANPA Administered Resources

The CNA performs the following tasks with respect to the North American Numbering Plan (NANP) number resources, which are administered by the NANP Administration:

- 1) Receive, validate and forward applications from Canadian entities to NANPA for assignment of:
 - a) NPA Codes;

- b) International Inbound NPA 456 NXX Codes;
- c) PCS/N00 NXX Codes (NPA 500 NXXs);
- d) NPA 9YY NXX Codes;
- e) NPA 800 855-XXXX line numbers;
- f) 555-XXXX line numbers; and,
- g) Carrier Identification Codes (CICs).

2) Reclaim resources in certain circumstances.

D) Administration of Canadian Numbering Resources

The CNA performs the following administrative tasks:

- 1) Receive, validate and process requests and maintain records for Non-Geographic Code Assignments (e.g., 5XX line numbers, NPA 600 NXX Codes, NPA 6YY and NPA 9YY resources), International Mobile Station Identity (IMSI) Codes, System Identifier Codes (SIDs); Emergency Service Routing Digit (ESRD) Blocks and MIN Block Identifier (MBI) Codes;
- 2) Maintain and publish lists containing assignment information for Canadian numbering resources and approved applications of N11 codes in Canada;
- 3) Prepare and publish a CNA Annual Report on the status of Canadian numbering resources;
- 4) Seek clarification of CRTC-approved and INC industry guidelines from the CSCN, CRTC staff or CRTC, as necessary;
- 5) Provide 'on request' reports to CSCN related to various numbering topics and data;
- 6) Provide clarification to interested parties with respect to the application of numbering resource guidelines and CRTC regulations applicable in Canada;
- 7) Participate in the CNA performance review process;
- 8) Investigate number assignment and administration issues, as necessary;
- 9) Seek resolution, as necessary, from CSCN or CRTC of number assignment and administration issues (including, but not limited to, frequency, format and content of NRUFs; Relief NPA selection; liaising with other numbering forums in North America);

- 10) Participate in and provide supporting data to the CSCN and CSCN Contribution Development Teams on request;
- 11) Liaise and coordinate the CNA's activities with NANPA to ensure effective and efficient use of NANP resources in Canada;
- 12) Establish and maintain relationships with Industry Canada and the CRTC;
- 13) Develop and maintain knowledge of numbering activities at the INC and assess the impacts of any INC activities on Canadian numbering administration and CNA functions;
- 14) Respond to requests from entities, including but not limited to, participants in the Canadian telecommunications industry, Industry Canada, the CRTC and the media about Canadian numbering resources and their administration;
- 15) Be the primary repository for numbering resource information for the Canadian telecommunications industry; and
- 16) Communicate, orally and in writing, in both official languages, English and French.

CSCN Secretary

All of the CSCN secretary activities were carried out as required. Of particular interest, the CNA recorded the minutes and updated documentation for two one-day and one two-day CSCN face-to-face meetings. The dates of the CSCN meetings held in 2015 were February 24, June 16 and 17, and October 14. Copies of these meeting minutes are located at <http://www.crtc.gc.ca/cisc/eng/cisf3fa.htm#MINUTES>.

In addition to the regular CSCN face-to-face meetings, the CSCN Secretary recorded the minutes and updated documentation for 3 CSCN agenda-setting teleconferences, and 15 CSCN teleconferences which can also be found at the website mentioned above.

CSCN Chair

The CSCN Chair is required to chair all CSCN meetings and teleconferences and attend all CISC Steering Committee meetings and teleconferences as well as prepare and present quarterly reports to the CISC concerning CSCN activities. The CNA chaired two one-day and one two-day meetings, 3 agenda-setting teleconferences and 15 regular CSCN teleconferences. The CSCN Chair also participated in 10 CISC walk-around processes or conference calls.

Central Office (CO) Code Administration

Canada is a member of the NANP. NANP telephone numbers are in the format NXX-NXX-XXXX where N is equal to 2 through 9 and X is equal to 0 through 9. The first NXX in a telephone number is the Numbering Plan Area (NPA) Code or Area Code, the second NXX is the CO Code and the XXXX is the line number.

When an eligible TSP in Canada requires the assignment of a block of telephone numbers, an application is made to the CNA for the assignment of a CO Code and its associated 10,000 line numbers. The CNA reviews the application to ensure that the service provider is eligible for the assignment of the CO Code, in accordance with the CRTC-approved Canadian COCA Guideline. Once it is determined that the applicant has met all eligibility criteria and the application is completed with the correct data, a CO Code is selected and the data is entered into the Canadian Numbering Administration System (CNAS) and the Telcordia™ Technologies, Inc., dba iconectiv, Assigned Code Record (ACD) screen. After the data is entered, the applicant is officially notified of the assignment using a Part 3 form. A Part 4 form is submitted to the CNA once the CO Code has been placed in-service by the Code Holder. The CNA subsequently updates the CNAS and the ACD screen to show that the CO Code is in-service. The CO Code listings are updated on a daily basis on the CNA website at http://www.cnac.ca/co_codes/co_code_status.htm. The Canadian COCA Guideline, which was developed by the CSCN and approved by the CRTC, may be found at <http://www.crtc.gc.ca/cisc/eng/cisf3fg.htm>.

An applicant is never denied the assignment of a CO Code due to the improper completion of an application. CNA staff members work with the applicant until the application is completed correctly. However, in 2015, 2 application were denied because the applicants did not respond to the CNA's requests for additional documentation, within the 14 calendar days allowed by the Canadian COCA Guideline.

The following table lists the CO Code Administration activity in 2001, through 2015. It should be noted that all CO Code administration activities were completed within the timeframes stipulated in the Canadian COCA Guideline.

CO Code Administration activity in 2001, through 2015

Month	Part One Initial/ Growth	Part One Update	Bulk A	Bulk B	Reclaimed	Other
January 01	84	34	110	0	7	1
January 02	34	22	0	20	4	0
January 03	33	65	0	0	1	0
January 04	15	22	0	0	0	4
January 05	34	12	0	0	0	5
January 06	51	14	0	0	26	3
January 07	69	37	0	0	2	12
January 08	34	22	0	0	9	1

Month	Part One Initial/ Growth	Part One Update	Bulk A	Bulk B	Reclaimed	Other
January 09	70	14	0	0	10	0
January 10	45	12	0	0	1	0
January 11	38	16	0	0	5	0
January 12	54	14	0	0	0	1
January 13	44	16	0	0	1	8
January 14	48	24	0	0	5	1
January 15	19	7	0	36	0	0
February 01	44	10	0	0	3	1
February 02	57	5	0	23	0	3
February 03	20	87	0	0	0	0
February 04	33	25	0	0	0	10
February 05	73	26	0	0	2	1
February 06	80	12	134	0	1	7
February 07	46	36	30	0	2	2
February 08	59	4	0	0	16	1
February 09	39	0	87	0	1	0
February 10	68	15	0	0	3	2
February 11	61	10	0	0	0	4
February 12	78	8	0	0	6	4
February 13	55	1	0	0	1	1
February 14	34	12	0	0	9	3
February 15	31	3	0	0	0	1
March 01	33	11	0	0	7	0
March 02	44	26	0	27	14	0
March 03	50	29	0	0	0	5
March 04	42	44	0	0	0	1
March 05	57	30	0	0	0	2
March 06	111	8	50	0	2	0
March 07	76	18	0	0	4	35
March 08	61	8	0	0	3	1
March 09	57	27	0	0	1	1
March 10	75	14	0	0	12	7
March 11	99	13	0	0	0	0
March 12	129	10	0	0	0	0
March 13	59	5	0	0	2	0
March 14	56	6	0	0	4	0
March 15	102	4	0	0	0	2
April 01	15	11	0	0	12	1
April 02	26	9	0	41	23	5
April 03	23	34	0	38	1	0
April 04	54	42	0	0	13	7
April 05	33	31	0	0	2	2
April 06	56	22	79	0	0	2
April 07	39	6	0	0	5	8
April 08	75	21	0	0	2	9
April 09	61	5	0	0	17	1
April 10	29	25	0	0	2	1
April 11	36	14	32	0	1	0
April 12	108	13	10	0	0	1

Month	Part One Initial/ Growth	Part One Update	Bulk A	Bulk B	Reclaimed	Other
April 13	105	13	0	28	2	1
April 14	53	11	0	0	13	5
April 15	89	1	0	0	19	0
May 01	53	11	0	60	15	0
May 02	19	52	0	0	2	0
May 03	13	26	0	0	16	2
May 04	29	17	0	0	11	1
May 05	56	5	0	0	5	0
May 06	61	34	39	0	2	2
May 07	93	21	0	0	0	2
May 08	81	3	0	0	0	1
May 09	74	29	0	0	3	0
May 10	73	26	0	0	3	0
May 11	68	1	39	0	0	0
May 12	59	9	0	0	0	0
May 13	72	14	0	0	5	1
May 14	72	30	0	54	7	3
May 15	38	11	38	0	1	0
June 01	64	43	0	68	4	1
June 02	17	47	0	0	2	8
June 03	15	16	0	0	0	0
June 04	14	10	0	0	0	23
June 05	81	22	31	0	16	0
June 06	71	14	0	0	5	8
June 07	101	34	0	0	0	2
June 08	81	33	0	0	1	6
June 09	96	13	0	0	8	2
June 10	114	10	0	0	10	0
June 11	69	18	14	15	2	1
June 12	56	16	0	0	1	1
June 13	73	11	0	0	1	1
June 14	69	13	34	0	3	0
June 15	68	13	0	0	0	0
July 01	60	24	0	91	0	3
July 02	40	34	0	51	1	7
July 03	27	7	0	17	0	7
July 04	30	22	0	0	1	0
July 05	63	13	0	0	5	6
July 06	74	45	17	0	2	0
July 07	66	20	0	0	3	0
July 08	62	25	0	0	35	1
July 09	35	8	0	0	7	0
July 10	63	23	0	0	0	0
July 11	94	16	0	0	2	0
July 12	28	7	0	0	1	0
July 13	82	14	0	0	8	1
July 14	54	6	50	0	3	0
July 15	51	8	0	0	1	8

Month	Part One Initial/ Growth	Part One Update	Bulk A	Bulk B	Reclaimed	Other
August 01	34	25	0	85	3	3
August 02	32	5	0	10	2	45
August 03	19	2	0	0	0	0
August 04	45	13	0	0	0	0
August 05	52	29	20	0	6	5
August 06	112	21	0	0	0	0
August 07	137	21	12	0	1	0
August 08	52	24	0	0	31	0
August 09	53	14	18	0	3	0
August 10	108	10	0	15	8	4
August 11	49	20	0	0	2	0
August 12	62	8	0	23	3	1
August 13	68	8	0	11	1	11
August 14	85	4	0	13	3	0
August 15	121	18	0	0	1	1
September 01	65	38	0	0	2	7
September 02	46	18	0	0	1	0
September 03	62	10	0	0	0	7
September 04	30	14	0	45	0	5
September 05	31	40	0	0	1	1
September 06	142	65	0	28	2	7
September 07	97	16	0	0	33	0
September 08	189	18	0	0	14	1
September 09	51	18	0	0	1	7
September 10	121	8	0	26	2	2
September 11	125	41	0	0	1	0
September 12	58	12	12	0	10	0
September 13	68	7	0	0	7	0
September 14	40	5	24	10	2	0
September 15	151	19	0	0	2	1
October 01	52	45	0	0	10	1
October 02	10	9	0	0	3	0
October 03	39	10	0	0	1	0
October 04	35	18	0	0	7	0
October 05	78	19	0	0	2	6
October 06	67	37	0	0	2	7
October 07	59	10	0	0	5	0
October 08	89	15	10	0	20	6
October 09	49	12	0	0	2	0
October 10	98	14	0	0	8	2
October 11	66	38	28	41	10	2
October 12	89	18	0	0	0	3
October 13	71	16	0	14	2	9
October 14	89	16	0	0	6	1
October 15	63	5	0	27	7	1
November 01	31	46	0	0	48	21
November 02	16	5	0	0	4	0
November 03	20	28	0	10	11	0
November 04	63	20	13	0	10	35

Month	Part One Initial/ Growth	Part One Update	Bulk A	Bulk B	Reclaimed	Other
November 05	42	15	65	0	1	2
November 06	52	42	11	0	2	0
November 07	125	23	0	0	10	0
November 08	94	23	0	0	0	1
November 09	19	18	0	19	21	1
November 10	167	5	15	0	4	2
November 11	46	16	36	0	4	0
November 12	57	7	0	0	3	2
November 13	47	9	0	51	12	0
November 14	33	21	0	40	0	0
November 15	65	4	0	0	2	0
December 01	37	7	0	70	1	17
December 02	17	58	0	20	7	0
December 03	14	29	0	0	0	0
December 04	63	33	0	0	2	2
December 05	49	17	0	0	0	0
December 06	56	45	0	27	7	5
December 07	120	12	0	0	18	0
December 08	45	2	0	0	0	0
December 09	41	5	0	0	1	0
December 10	61	18	0	0	1	0
December 11	57	11	0	0	2	0
December 12	51	0	0	0	3	0
December 13	64	20	0	0	6	0
December 14	54	19	0	0	8	0
December 15	71	10	15	0	3	1
Totals 2001	572	305	110	374	112	56
Totals 2002	358	290	0	192	56	68
Totals 2003	335	343	0	64	30	21
Totals 2004	453	280	13	45	44	88
Totals 2005	649	259	116	0	40	30
Totals 2006	933	359	330	55	51	41
Totals 2007	1028	254	42	0	83	61
Totals 2008	992	198	10	0	131	28
Totals 2009	645	163	105	19	76	12
Totals 2010	1022	180	15	41	54	20
Totals 2011	808	214	149	56	29	7
Totals 2012	829	122	112	23	27	13
Totals 2013	808	134	0	104	48	33
Totals 2014	687	167	108	117	63	13
Totals 2015	869	103	53	63	36	15

Part One Initial/Growth applications are the quantity of CO Code Applications processed by the CNA that resulted in the assignment of new CO Codes. These would include

applications for Initial, Additional Codes for Growth or Additional Codes for a Unique Purpose.

Part One Update applications are the quantity of CO Code Applications processed by the CNA to update data in the CNAS and the ACD Screens. These applications are made using Part 1 - CO Code Assignment, Reservation, Information Change, or Return forms detailing the appropriate changes, for the affected CO Code. This process includes changes such as, but not limited to, the OCN, switching entity/POI and Rate Center name.

Part One Bulk A applications are the quantity of CO Code Applications processed by the CNA that are received in volume and require a significantly reduced level of effort to process, compared to the Part 1 applications discussed above. The CNAC Board has agreed that Bulk A applications will meet the following criteria:

- A Part One Application is required in accordance with the Canadian Central Office Code (NXX) Assignment Guideline;
- The Assigned Code Record (ACD) screen must be opened;
- One or two identical changes to the same data element;
- No error checking on the part of the CNA is required;
- Applications relate to updated information only;
- There must be at least 10 NXXs involved; and
- The normal 14 calendar day processing time does not apply.

Part One Bulk B applications are the quantity of CO Code Applications that are processed by the CNA and are received in volume and meet the following criteria as agreed to by the CNAC Board:

- A Part One Application is required in accordance with the Canadian Central Office Code (NXX) Assignment Guideline;
- The Assigned Code Record (ACD) screen must be opened;
- Three or more changes to the same data elements are required; or
- Identical changes to three or more data elements are required; or
- Differing changes made to three or more or numerous data elements are required;
- Error checking is provided by the CNA;
- Applications relate to updated information only;
- There must be at least 10 NXXs involved; and
- The normal 14 calendar day processing time does not apply.

Part One Recovered CO Code applications are the quantity of CO Code Applications processed by the CNA to reclaim CO Codes for the following reasons:

- a) The CO Code is no longer required by the Code Holder for the purpose originally assigned;
- b) The service for which the CO Code was assigned is discontinued;

- c) The CO Code Holder has ceased operation;
- d) The CO Code was assigned, but not used in conformance with the Canadian Central Office Code (NXX) Assignment Guideline; or
- e) The CO Code was not placed In-Service within the time frame specified in the Canadian Central Office Code (NXX) Assignment Guideline.

These applications are made using Part 1 - CO Code Assignment, Reservation, Information Change, or Return forms.

The “Other” column is the number of modifications made to the CNAS to correct the data received by the CNA during and since the CO Code Administration transition period.

Numbering Resource Utilization Forecast (NRUF)

Each NPA Code contains approximately 750 assignable CO Codes, depending on the NPA. The CNA is required to determine the approximate date when all assignable CO Codes will exhaust in each NPA to begin NPA relief planning activities to ensure that enough telephone numbers and CO Codes remain available for assignment prior to the introduction of a new NPA. This is achieved by conducting the annual NRUF.

In accordance with the Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline, during the fourth quarter of each year the CNA requests all existing and prospective Code Holders to complete the General Numbering Resource Utilization Forecast (G-NRUF) worksheet and return it to the CNA by February for analysis. On the worksheet, the Code Holders list the number of CO Codes, by NPA, that are assigned to them as well as forecast the number of CO Codes they expect to require, by NPA, in each of the next six years.

During the CNA's analysis of the data provided on the worksheets, any discrepancy between the CNA database and the number of assigned codes that the Code Holder has indicated on the worksheet is discussed with the Code Holder to ensure that the data is correct. The CNA also scrutinizes the Code Holder's forecast data to compare it against previous years' forecasts to detect any large deviations. The CNA contacts the Code Holder to determine why the deviation has occurred and to ensure that no errors were made. Additionally, the CNA verifies any forecasts from new entrants that appear to be inflated. The CNA discusses the forecast with the new entrant and offers educated assistance to ensure that the forecast is valid. Any large discrepancies or unusual forecasts are reported to CRTC staff for their information and action, before the final aggregate data is presented to the CSCN and posted on the CNA website. CRTC and CNA staff meet to discuss the NRUF results, in detail, before they are released to the CSCN and NANPA. Once the G-NRUF data is presented to CRTC staff and the CSCN, it is forwarded to the NANPA to be used in its analysis for determining the exhaust date of the NANP.

On December 15, 2014, the CNA requested all existing or prospective Code Holders to provide their year 2015 G-NRUF to the CNA by February 02, 2015. The aggregate G-NRUF data was posted to the CNA website on March 27, 2015, after it was presented to the CSCN and forwarded to the CRTC and the NANPA. The 2015 G-NRUF results confirmed that the NPA relief activities occurring in NPAs 226/519/548 and 403/587/780/825, remain necessary. The 2015 G-NRUF may be found at http://www.cnac.ca/co_codes/nruf/latest_forms/nruf_latest_forms.htm#Results.

2015 NRUF Activity

<u>NRUFs</u>	<u>DUE DATE</u>	<u>NUMBERS</u>	<u>NPAs</u>
G-NRUF	02 Feb. 2015	1	All geographic NPAs
G-NRUF	02 Feb. 2015	1	Non-Geographic NPAs using numbers in NPAs 5XX, 600 and 9YY
R-NRUF	02 Feb. 2015	2	NPAs 226/519/548 and 403/587/780/825
R-NRUF	04 Aug. 2015	2	NPAs 226/519/548 and 403/587/780/825
Total		6	

NPA Relief Planning

NPA relief planning is a public process that is described in the Canadian NPA Relief Planning Guideline, which may be found at <http://www.crtc.gc.ca/cisc/eng/cisf3fg.htm>. To increase public awareness and participation in the NPA relief planning process, the CRTC has determined that NPA Relief Planning Committees (RPCs) are to be established as ad hoc sub-committees of the CISC. The CNA is required to create and maintain an NPA Relief Planning distribution list, which is frequently updated as participants in the relief planning process are not static.

The R-NRUF forecast released on 24 March 2014 indicated that the Projected Exhaust Date for NPA 226/519 had become May 2018, which was almost three years beyond the Relief Date of 4 June 2015 established by Telecom Decisions CRTC 2013-575.

Section 4.6 g) of the Canadian NPA Relief Planning Guideline states:

If the Projected Exhaust Date changes after the Relief Date has been approved by the CRTC, or if other reasons suggest that a change in the Relief Date is desirable, then the RPC may recommend that the CRTC change the Relief Date.

After several conference calls, the RPC created an updated Relief Implementation Plan for NPA 226/519 which was submitted to the CRTC on 21 April 2014 in NPA 226/519 TIF Report #2. The TIF Report recommended that the Relief Date be moved out to 4 June 2016.

In Telecom Decision CRTC 2014-338 dated 20 June 2014, the CRTC approved the updated relief implementation plan and set the relief implementation date for area code 226/519 to 4 June 2016.

As part of the Relief Planning process, the RPC creates the Network Implementation Task Force (NITF) and the Consumer Awareness Program Task Force (CATF) and approves their output reports before sending them to CRTC staff. In 2015, these activities continued to be carried out for NPAs 226/519, 403/587/780 and the final stages of NPA 902. The Relief Date for the latter was November 2014. Consequently, the reclamation of Test Codes, development of the Final Task Force Reports and a post-mortem of the process did not take place until 2015.

During 2015 the CNA chaired, supplied a Secretary and Relief Planner and prepared minutes for 4 RPC teleconferences as listed below. Additionally, the CNA maintained two Relief Planning Documents and performed six Relief, or G--NRUFs as listed above. The CNA was required to develop three CNA Update on NPA Relief Planning Activities reports for the CSCN. The CNA also attends all CATF and NITF meetings and teleconferences; one in 2015.

NPA Relief Planning Meetings and Conference Calls:

NPA	Type	Date
902	Conference call	January 7
226/519 and 403/587/780	Conference call	April 7
226/519	Conference call	June 23
226/519 and 403/587/780	Conference call	September 16

CNA Role in NANPA Administered Resources

In addition to NPA Codes, the NANP contains other numbering resources. These numbering resources are also assigned to Canadian telecommunications entities by the NANPA via the CNA. Applications for these resources are received by the CNA and reviewed for accuracy and to ensure that the applicant meets Canadian regulatory requirements. Complete and correct applications are forwarded to the NANPA along with a recommendation for assignment. The CNA will deny the assignment of these resources and return the application where the applicant does not meet Canadian regulatory requirements or the requirements of the applicable assignment guideline or its Canadian adjunct. No application is rejected because it is not completed correctly unless it is impossible to acquire the necessary information from the applicant. The CNA works with the applicant until the application is properly completed. Once the NANPA has assigned

a code, it is forwarded to the CNA who informs the applicant of the assignment. The CNA acts as the Canadian telecommunications industry liaison with the NANPA.

The CNA keeps a separate listing of all resources assigned to Canadian entities along with links to the associated Industry Numbering Committee assignment guidelines and the associated Canadian Adjunct to those guidelines. These items may be accessed through the CNA website at <http://www.cnac.ca/> by using the drop down list under the “Numbering” button.

The CNA is required to receive, validate and forward applications from Canadian entities to NANPA for assignment of the following resources:

- NPA Codes;
- International Inbound NPA 456 NXX Codes;
- PCS/N00 NXX Codes (NPA 500 NXXs) reserved for Canadian entities;
- NPA 9YY NXX Codes;
- NPA 800 855-XXXX line numbers;
- 555-XXXX line numbers; and
- Carrier Identification Codes (CICs).

During 2015, 4 CICs were assigned, 8 were reclaimed, and 42 were updated.

There was 1 NPA Code assigned (622).

CNA Role in Telcordia™ Technologies, Inc. dba iconectiv Administered Resources

In addition to the NANPA administered resources, SS7 resources are assigned to Canadian telecommunications entities by iconectiv with the assistance of the CNA. iconectiv is under contract by the American National Standards Institute (ANSI) to administer these resources in North America. Applications for these resources are submitted online to iconectiv and require an up-front fee payment before the application is processed. Most applicants require the CNA’s assistance to determine if they require a Small Network Code or a Network Code Block and to determine if they meet the regulatory requirements to be eligible for an assignment. The CNA is normally required to assist new applicants to locate the SS7 related website and complete the online form. Once iconectiv has assigned a code, notice of its assignment is forwarded to the CNA and the applicant. The CNA acts as the Canadian telecommunication industry liaison with iconectiv.

A description of SS7 Network Codes and the Global Title Translation (GTT) Point Code Industry Notification Process, which is facilitated by CRTC staff, can be found at the CNA website at <http://www.cnac.ca/> by using the drop down list under the “numbering” button. It should be noted that a list of these resources does not currently appear on the CNA website at the request of the industry.

During 2015, one SS7 Small Network Code and one Network Point Code Block were assigned.

Other Administration Activities

The CNA is required to receive, validate and process requests and maintain records for NPA 600 NXX Codes. A description of these resources and a listing of assignments may also be found on the CNA website. There has been no NPA 600 NXX Code assignment activity during 2015, although there have been serious questions. No NPA 600 NXXs were reclaimed.

The CNA is required to receive, validate and process requests and maintain records for Canadian Emergency Service Routing Digit (ESRD) Blocks. A description of these resources and a listing of assignments may also be found on the CNA web site. There were 1,280 ESRD Blocks assigned during 2015.

The CNA is required to receive, validate and process requests and maintain records for Canadian MIN Block Identifier (MBI) Codes. A description of these resources and a listing of assignments may also be found on the CNA web site. During 2015, there were 370 Codes assigned, 171 updated and 36 reclaimed.

The CNA is required to receive, validate and process requests and maintain records for System Identifier Codes (SIDs). A description of these resources can be found on the CNA website. There were no SID assignments in 2015.

The CNA is required to receive, validate and process requests and maintain records for International Mobile Station Identifier Codes (IMSI). A description of these resources and a listing of assignments can be found on the CNA web site. There were 3 IMSI Mobile Network Code assignments during 2015.

The CNA is required to seek clarification of CSCN and INC Industry Guidelines from the CSCN or CRTC, as necessary. There have been a number of occasions where this has been necessary. In 2015, the CNA developed 4 TIF reports. Additionally, the CNA is usually a member of any Contribution Development Team that submits a contribution to the CSCN. The CNA submitted nine stand-alone contributions in 2015.

On 9 January 2015, in Telecom Decision CRTC 2015-4, the CRTC approved the Canadian Non-Geographic Code Assignment Guideline. The purpose of the Guideline is to provide guidance to the CNA, Code Applicants and Code Holders with respect to the administration, assignment, activation, and use of Non-Geographic NXX Codes. Canadian Non-Geographic NPAs include 622, 633, 644, 655, 677, and 688. These are referred to as “6YY” NPAs.

The Guideline anticipates that one service that could utilize Non-Geographic numbers is Machine-To-Machine (M2M). During 2015, 15 Non-Geographic Codes were assigned by

the CNA. The CNA has been closely monitoring these assignments to ensure that these Codes are put in-service within the appropriate timeframes.

Industry Fora

To ensure that the CNA is up to date with CSCN activities and to ensure that the CSCN is able to develop and modify number assignment guidelines, the CNA attends a number of industry fora in the US. The CNA attended Common Interest Group on Routing and Rating (CIGRR) meetings to ensure that Canadian industry is aware of rating and routing changes in the US that affect Canada and Canadian assignment guidelines. Generally, there is no other Canadian entity attending these meetings. The CNA attended 15 CIGRR meetings and teleconferences in 2015, including attending Canadian CIGRR teleconferences.

The CNA is required to develop and maintain knowledge of numbering activities at the INC and assess the impacts of any INC activities on Canadian numbering and CNA functions. The CNA attended three three-day and four two-day INC meetings in 2015 and has delivered seven summaries of INC issues that could affect Canadian assignment guidelines to the CSCN following all INC general meetings. No other Canadian entity attends these meetings.

Canadian CIGRR

The Canadian Common Interest Group on Routing and Rating (CCIGRR) was implemented to ensure that Canadian industry is aware of rating and routing changes in the US that affect Canada, and to develop Canadian only solutions to rating and routing issues. The CNA attended 4 teleconferences in 2015.

Website

The CNA is required to establish and maintain a public Internet website. The CNA website contains numbering information, which is unique to Canada, and generally it does not duplicate information that is available from the NANPA website. The CNA website provides a brief description of the information that is contained on the NANPA website, including the NANPA Internet website address.

The following information is available on the CNA Internet website at www.cnac.ca:

- 1) CNA mandate, mailing address, contact names, telephone and facsimile numbers, and E-mail addresses;
- 2) Canadian Numbering Administration Consortium (CNAC) background, mailing address, contact names, telephone and facsimile numbers, and E-mail addresses;

- 3) Canadian Geographic NPA Information including a Map of Canada showing Canadian geographic NPAs and a list of CO Codes and the status of each (e.g., assigned, reserved, protected, test, available) in a downloadable spreadsheet file format;
- 4) Canadian Non-Geographic NPA and CO Code information. Non-Geographic NPA CO Codes are not associated with Exchange Areas and can not be shown on a map. A list of Non-Geographic CO Codes and the status of each (e.g., assigned, reserved, protected, test, available) in a downloadable spreadsheet file format is available;
- 5) A list of Canadian National Numbering Resources;
- 6) Unique CRTC-approved Number Resource Assignment Guidelines, including CSCN Administrative Guidelines and links to the CRTC website;
- 7) List of INC Number Resource Assignment Guidelines which apply in Canada plus the address of the website where copies may be obtained;
- 8) Other CNA information or reports as directed by CNAC and the CRTC;
- 9) CNA Annual Reports;
- 10) CSCN Information;
- 11) CSCN Membership List including company name, contact name, mail address, telephone and facsimile number, and e-mail address;
- 12) Current Schedule of CSCN meetings and conference calls; and,
- 13) Most recent Draft CSCN Meeting Minutes

This information is updated on a timely basis when the CNA receives new information and at a minimum of once every week. The cnac.ca web site had 246,656 sessions comprising 423,902 pageviews in 2015.