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Leidos Canada Inc.



Date: 15 December 2017

To: Current and Prospective Canadian Central Office Code (NXX) Holders

Subject: Inputs required for 2018 Numbering Resource Utilization Forecasts, and Reserved and Held Telephone Number Report

Guidelines approved by and Decisions made by the Canadian Radio-television and Telecommunications Commission (CRTC) require current and prospective Central Office (CO) Code Holders to submit inputs to the Canadian Numbering Administrator (CNA) for Numbering Resource Utilization Forecasts (NRUFs), and require certain CO Code Holders to submit an Exception Report on the Quantities of Reserved and Held Telephone Numbers to the CNA.

The required NRUF inputs and report are:

- a) **G-NRUF Geographic** – the 2018 General NRUF, due by 1 February 2018.
- b) **G-NRUF Non-Geographic** – the 2018 General NRUF for non-geographic NPAs, due by 1 February 2018.
- c) **R-NRUFs** – Relief Planning NRUFs for the following **seven** NPAs, due by 1 February 2018.

- i. 236/250/604/778
- ii. 289/365/905
- iii. 403/587/780/825
- iv. 418/581
- v. 450/579
- vi. 506
- vii. 709

Canadian Numbering Administrator

60 Queen St., Suite 1516, Ottawa, Ontario, Canada K1P 5Y7

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- d) **Exception Report on the Quantities of Reserved and Held Telephone Numbers** - due by 30 March 2018.

It is not necessary to complete any of the reports if there is no data to submit, however an e-mail to indicate that your company does not have and is not intending to have any of these resources over the period from January 2018 to January 2024 would be appreciated.

It is preferable that all 2018 NRUF reports be submitted by e-mail to nruf@cnac.ca and that the Exception Report on the Quantities of Reserved and Held Telephone Numbers be sent to randh@cnac.ca.

Alternatively, the completed worksheets can also be sent via mail, courier or facsimile to the following address:

Glen Brown
 January 2018 NRUF or 2018 R&H Telephone Numbers (as appropriate)
 Canadian Numbering Administrator
 1516 – 60 Queen Street
 Ottawa, Ontario K1P 5Y7
 Tel: 613-683-3291
 Fax: 613-563-9293

a) G-NRUF Geographic

The *Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline* requires all current and prospective CO Code Holders to submit actual and forecasted quantities of CO Codes as input for the annual G-NRUF. The G-NRUF is required by the CNA to project Canadian Numbering Plan Area (NPA) exhaust dates, and aids the North American Numbering Plan (NANP) Administrator in projecting NANP exhaust.

All current and prospective CO Code Holders in Canadian Geographic NPAs are required to provide actual and forecasted CO Code quantities using the January 2018 G-NRUF Geographic Worksheet. The January 2018 G-NRUF Geographic Worksheet is available at <http://cnac.ca/NRUF/NRUF.htm#LatestForms>. See Annex A for instructions for the 2018 G-NRUF Geographic Worksheet. Completed G-NRUF worksheets must be returned to the CNA no later than **1 February 2018**.

b) G-NRUF Non-Geographic

The *Canadian Adjunct to the INC Personal Communications Services (PCS) 5YY NXX Code Assignment Guidelines*, the *Canadian NPA 600 NXX Code Assignment Guideline*, *Canadian Non-Geographic Code Assignment Guideline* or the *Canadian Adjunct to the Industry Numbering Committee (INC) 9YY NXX Code Assignment Guidelines*, as applicable, require all current and prospective CO Code Holders to submit actual and forecasted quantities of CO Codes for non-geographic NPAs as input for the annual G-NRUF. The G-NRUF is required by the CNA to project Canadian Numbering Plan Area (NPA) exhaust dates, and aids the North American Numbering Plan (NANP) Administrator in projecting NANP exhaust.

All current and prospective CO Code Holders using numbers in NPAs 5YY, 600, Non-Geographic Codes (i.e., NPA 622) and 9YY are required to provide actual and forecasted CO Code quantities using the January 2018 G-NRUF Non-Geographic Worksheet. The January 2018 G-NRUF

Non-Geographic Worksheet is available at <http://cnac.ca/NRUF/NRUF.htm#LatestForms>. See Annex B for instructions for the 2018 G-NRUF Non-Geographic NPA Worksheet. Completed G-NRUF worksheets must be returned to the CNA no later than **1 February 2018**.

c) R-NRUFs

The following seven NPAs are in the relief planning window, according to Section 7.1 of the *Canadian NPA Relief Planning Guideline* and the January 2017 G-NRUF and July 2017 J- and R-NRUF Results:

- i. 236/250/604/778
- ii. 289/365/905
- iii. 403/587/780/825
- iv. 418/581
- v. 450/579
- vi. 506
- vii. 709

When NPAs enter the timeframe for relief planning (about 72 months), initial R-NRUFs are conducted. The C-NRUF Guideline requires subsequent R-NRUFs to be conducted semi-annually until 3 months before the Relief Date to monitor CO Code forecast changes prior to implementing relief.

All current and prospective CO Code Holders intending to provide service in the next six (6) years in the exhausting NPAs listed above are required to provide actual and forecast CO Code quantities at the R-NRUF level of detail by completing an R-NRUF worksheet corresponding to that NPA. The R-NRUF worksheets are available at <http://cnac.ca/NRUF/NRUF.htm#LatestForms>. See Annex C for instructions for the R-NRUF worksheets. The completed R-NRUF worksheets must be returned to the CNA no later than **1 February 2018**.

Section 7.19 of the *Canadian NPA Relief Planning Guideline* details the circumstances under which a Jeopardy Condition will be suspended or declared. It states in part:

If the PED advances to be within or is deferred beyond the timeframes specified in the Jeopardy Condition section of this Guideline, then the CNA shall, respectively, declare or suspend a Jeopardy Condition, and implement or end Jeopardy Contingency Plan procedures ...

The CNA published the July 2017 J-NRUF Results for NPAs 418/581 and 709 on 5 September 2017. The results show that the PEDs for these NPAs have been deferred. Therefore, in accordance with Section 7.19 of the Guideline, the Jeopardy Conditions in NPA 418/581 and NPA 709 have been suspended. The J-NRUFs for NPA 418/581 and NPA 709 have been replaced with R-NRUFs.

d) Exception Report on the Quantities of Reserved and Held Telephone Numbers

If on 1 January 2018 a Code Holder's quantity of Reserved and Held Telephone Numbers for a Switching Entity/POI and Exchange Area exceeds the amount permitted by Appendix G of the *Canadian Central Office Code (NXX) Assignment Guideline* (COCA Guideline), the Code Holder must submit an exception report to the CNA. See the instructions in Annex D for the Exception

Report on the Quantities of Reserved and Held Telephone Numbers. The Reserved and Held worksheet is available at <http://cnac.ca/NRUF/NRUF.htm#LatestForms>

TSPs to which this requirement applies must submit their completed Exception Reports to the CNA on or before **30 March 2018**.

All Code Holder inputs will be treated as confidential in accordance with the applicable guidelines. If you have any questions or concerns regarding any of the above reporting requirements, please call Glen Brown at 613-683-3291.

Thank you for your cooperation in these matters.

Glen Brown
Program Manager –
Canadian Numbering Administrator

Annexes

ANNEX A G-NRUF Geographic Instructions

These instructions are for the 2018 G-NRUF Geographic Worksheet. For additional information see the C-NRUF Guideline at <http://www.crtc.gc.ca/public/cisc/cn/CNODGL0016D.docx>. The term CO Code Holder used below refers to the representative of the current or prospective CO Code Holder who submits the 2018 G-NRUF Geographic Worksheet.

- 1) CO Code Holders must review the C-NRUF Guideline and these instructions before completing the 2018 G-NRUF Geographic Worksheet.
- 2) If a CO Code Holder has more than one Operating Company Number (OCN), a separate G-NRUF Geographic worksheet must be completed for each OCN assigned to that CO Code Holder.
- 3) Each CO Code Holder that holds any assigned or reserved CO Codes in any Canadian NPA or that intends to obtain any such CO Codes by 1 January 2024 must complete the January 2018 G-NRUF Geographic Worksheet.
- 4) All CO Code quantities entered on the G-NRUF Geographic worksheet should be whole numbers (i.e., 1, 2, 3, etc.) for both actual and forecast years. Actual and forecast entries should reflect the total quantity of assigned and reserved CO Codes as of 1 January of each year.
- 5) Plant Test Codes other than industry test codes 958 and 959 must be included in the quantities of CO Codes submitted by the CO Code Holder.
- 6) Where the CO Code Holder's data is inconsistent with or indicates a significant difference from previously submitted NRUF data, the CO Code Holder shall submit a written explanation to the CNA with the 2018 G-NRUF Geographic in the "Remarks" section of the form or in an attachment to assist the CNA in the assessment of the data.

CO Code Holders are requested to submit the January 2018 G-NRUF Geographic Worksheet to the CNA **as soon as it is completed** rather than waiting for the deadline. CO Code Holders must complete the worksheet and submit it to the CNA no later than **1 February 2018**, preferably via E-mail to nruf@cnac.ca.

Alternatively, the worksheet can be sent via regular mail, courier or facsimile, as follows:

Glen Brown
January 2018 G-NRUF
Canadian Numbering Administrator
1516 – 60 Queen Street
Ottawa, Ontario K1P 5Y7
Tel: 613-683-3291
Fax: 613-563-9293

If you have any questions concerning the worksheets or these instructions, contact Suresh Khare at khares@leidos.ca or Glen Brown at browng@leidos.ca.

ANNEX B G-NRUF Non-Geographic Instructions

These instructions are for the 2018 G-NRUF Non-Geographic Worksheet. For additional information see the *Canadian Adjunct to the INC Personal Communications Services (PCS) 5YY NXX Code Assignment Guidelines*, the *Canadian NPA 600 NXX Code Assignment Guideline*, the *Canadian Non-Geographic Code Assignment Guideline* or the *Canadian Adjunct to the Industry Numbering Committee (INC) 9YY NXX Code Assignment Guidelines*, as applicable, at: <http://www.crtc.gc.ca/cisc/eng/cisf3fg.htm>.

The term CO Code Holder used below refers to the representative of the current or prospective CO Code Holder who submits the 2018 G-NRUF Non-Geographic Worksheet.

- 1) CO Code Holders must review the applicable Canadian Adjunct or Guideline and these instructions before completing the 2018 G-NRUF Non-Geographic Worksheet.
- 2) If a CO Code Holder has more than one Operating Company Number (OCN), a separate worksheet must be completed for each OCN assigned to that CO Code Holder.
- 3) Each CO Code Holder that holds any assigned or reserved CO Codes in Non-Geographic NPAs 5YY, 600, Non-Geographic (i.e. NPA 622) or 9YY or that intends to obtain any such CO Codes by 1 January 2024 must complete the January 2018 G-NRUF Non-Geographic Worksheet.
- 4) All CO Code quantities entered on the worksheet should be whole numbers (i.e., 1, 2, 3, etc.) for both actual and forecast years. Actual and forecast entries should reflect the total quantity of assigned and reserved CO Codes as of 1 January of each year.
- 5) The CO Code Holder need only submit a written explanation concerning the input if it will assist the CNA in the assessment of the data.

CO Code Holders are requested to submit the 2018 G-NRUF Non-Geographic Worksheet to the CNA **as soon as it is completed** rather than waiting for the deadline. CO Code Holders must complete the worksheet and submit it to the CNA no later than **1 February 2018, preferably via E-mail to nruf@cnac.ca**.

Alternatively, the worksheet can be sent via regular mail, courier or facsimile, as follows:

Glen Brown
January 2018 G-NRUF Non-Geographic
Canadian Numbering Administrator
1516 – 60 Queen Street
Ottawa, Ontario K1P 5Y7
Tel: 613-683-3291
Fax: 613-563-9293

If you have any questions concerning the worksheet or these instructions, contact Suresh Khare at khares@leidos.ca or Glen Brown at browng@leidos.ca.

ANNEX C R-NRUF Instructions

These instructions are for the January 2018 R-NRUF Worksheets. There is a separate worksheet for each of the following NPAs:

- i. 236/250/604/778
- ii. 289/365/905
- iii. 403/587/780/825
- iv. 418/581
- v. 450/579
- vi. 506
- vii. 709

For additional information see the C-NRUF Guideline at <http://www.crtc.gc.ca/public/cisc/cn/CNODGL0016D.docx>. The term CO Code Holder used below refers to the representative of the current or prospective CO Code Holder who submits the January 2018 R-NRUF Worksheets.

- 1) CO Code Holders must review the C-NRUF Guideline and these instructions before completing the January 2018 R-NRUF Worksheets.
- 2) If a CO Code Holder has more than one Operating Company Number (OCN), separate R-NRUF worksheets must be completed for each OCN assigned to that CO Code Holder.
- 3) Each CO Code Holder that holds any assigned or reserved CO Codes in one of the NPAs listed above, or that intends to obtain any such CO Codes by 1 January 2024 must complete the worksheets for the relevant NPAs.
- 4) All actual and forecast CO Code quantities entered on the R-NRUF worksheets should be whole numbers (i.e., 1, 2, 3, etc.). Actual and forecast quantities should be for 1 January of each year.
- 5) Any Plant Test Codes other than industry plant test codes 958 and 959, and other CO Codes not associated with specific Exchange Areas must be included in the quantities in the row labelled "CO Codes not associated with an Exchange (e.g., 310)".
- 6) When a current or prospective CO Code Holder submits NRUF data that is inconsistent with or is significantly different from previously submitted data, the current or prospective CO Code Holder shall submit a written explanation to the CNA with the NRUF to assist the CNA in the assessment of the data. Current and prospective CO Code Holders whose forecasts differ from their previous forecasts by more than both +/- 3 CO Codes and +/- 5% over shall provide an explanation for these changes in the "Remarks" section of the NRUF forms:
 - for the total variance when an NPA is in or entering the relief planning window (i.e., applies to the growth variance between the last common period of the previous 6 year forecast and the new forecast; not to the individual years or portions of years within the forecast).

Current and prospective CO Code Holders may also be required to provide additional information explaining inconsistent data or significant differences from previously

submitted data at the request of the CNA. See section 4, item 7) of the Guideline for a table indicating how the criteria are to be applied for various situations.

CO Code Holders are requested to submit the January 2018 R-NRUF Worksheets to the CNA **as soon as they are completed** rather than wait for the deadline. CO Code Holders must complete the worksheets and submit them to the CNA no later than **1 February 2018**, preferably via E-mail to nruf@cnac.ca.

Alternatively, the worksheets can be sent via regular mail, courier or facsimile, as follows:

Glen Brown
January 2018 R-NRUF
Canadian Numbering Administrator
1516 – 60 Queen Street
Ottawa, Ontario K1P 5Y7
Tel: 613-683-3291
Fax: 613-563-9293

If you have any questions concerning the worksheets or these instructions, contact Suresh Khare at khares@leidos.ca or Glen Brown at brownq@leidos.ca.

Annex D
Instructions - Exception Report on the Quantities of Reserved & Held Telephone Numbers

These instructions are for the annual Exception Report on the Quantities of Reserved and Held Telephone Numbers.

- 1) CO Code Holders must review these instructions before completing the January 2018 Reserved and Held Worksheet.
- 2) If a Code Holder to which this reporting requirement is applicable has more than one Operating Company Number (OCN), a separate Exception Report must be completed for each OCN assigned to that Code Holder which has a quantity of Reserved and Held Telephone Numbers that exceeds the amount specified in Appendix G of the *Canadian Central Office Code (NXX) Assignment Guideline*. The applicable sections of the Appendix have been attached to these instructions.
- 3) The Report shall include data as at **1 January 2018**.
- 4) A copy of the first page of the Code Holder's report, bearing the signature of the Authorized Representative must be sent by mail, courier or facsimile to the address shown below.

Code Holders are requested to submit the Exception Report on the Quantities of Reserved and Held Telephone Numbers to the CNA **as soon as it is completed** rather than wait for the deadline. Code Holders must complete the worksheet and submit it to the CNA no later than **30 March 2018, preferably via E-mail to randh@cnac.ca**. Alternatively, the completed worksheet can also be sent via mail, courier or facsimile to the following address:

Glen Brown
2018 R&H Telephone Numbers
Canadian Numbering Administrator
1516 – 60 Queen Street
Ottawa, Ontario K1P 5Y7
Tel: 613-683-3291
Fax: 613-563-9293

If you have any questions concerning the worksheet or these instructions, contact Glen Brown at 613-683-3291.

Appendix G - Reserved and Held Telephone Numbers

1. The quantity of Reserved and Held Telephone Numbers maintained by a Code Holder for customers in an Exchange Area served by a Switching Entity/POI, shall not exceed an amount equal to 20% of the following: 10,000 times the quantity of CO Codes assigned to the Code Holder and associated with that Switching Entity/POI and Exchange Area, less the quantity of telephone numbers ported out of the Code Holder's Switching Entity/POI in that Exchange Area, plus the quantity of telephone numbers ported into the Code Holder's Switching Entity/POI in that Exchange Area. An Exchange Area could be served by more than one Switching Entity/POI. A single switch may serve more than one Switching Entity/POI and therefore may serve more than one Exchange Area.
2. In an NPA Jeopardy Condition, these guidelines may be temporarily modified as a result of CRTC-approved industry consensus or regulatory order.
3. When applying for an Additional CO Code for Growth for a specific Switching Entity/POI and Exchange Area, the Code Applicant shall certify on the Part 1 Form (CO Code Assignment, Reservation, Information Change, or Return) that the quantity of Reserved and Held Telephone Numbers maintained by the Code Applicant for customers in the specific Switching Entity/POI and Exchange does not exceed the quantity permitted by item 1 or 2 above.
4. In order to determine when the quantity of Reserved and Held Telephone Numbers for a Switching Entity/POI and Exchange Area exceeds the amount permitted by item 1 or 2 above, Code Holders shall annually track the quantity of CO Codes and Telephone Numbers assigned to them and the quantity of Reserved and Held Telephone Numbers for all Switching Entities/POIs by Exchange Area. Code Holders shall keep the data for 5 years either in the attached report format or in a format that will allow the attached report format to be created within a reasonable time frame, if required in the event of an audit or a request from the CRTC.
5. If on 1 January each year a Code Holder's quantity of Reserved and Held Telephone Numbers for a Switching Entity/POI and Exchange Area exceeds the amount permitted by item 1 or 2 above, the Code Holder shall by March 31 of that year submit an exception report to the CNA using the attached form, and shall make a good faith effort to bring the quantity of Reserved and Held Telephone Numbers into compliance in a timely manner.
6. If a Code Holder's quantity of Reserved and Held Telephone Numbers for a Switching Entity/POI and Exchange Area exceeds the amount permitted by item 1 or 2 above, the CNA shall advise, support and monitor (e.g., quarterly reports) the efforts of the Code Holder to bring the quantity of Reserved and Held Telephone Numbers into compliance.
7. The CNA shall, if any exception reports are received, submit a report to the CRTC each year that identifies Code Holders' Switching Entities/POIs by Exchange Area where the permitted quantity of Reserved and Held Telephone Numbers as determined under item 1 or 2 above is exceeded. The CSCN anticipates that the CRTC will review all reported violations and consult with the Code Holders to determine the reasons for the violations. In conducting the review, the CSCN anticipates the CRTC will assess the circumstances that gave rise to the violation, including but not limited to the impact of ported-in Reserved and Held telephone numbers, competitive equity considerations, and new entrant

- requirements. After conducting the review, the CSCN anticipates the CRTC will take whatever action it deems appropriate to address the violations. For example, the CSCN anticipates that the CRTC could order a Code Holder to come into compliance within a reasonable period of time, or authorize a Code Holder to exceed the maximum for a specified period of time under certain terms and conditions.
8. Reserved and Held Telephone Numbers are subject to porting between Code Holders participating in LNP and/or Wireless Number Portability (WNP) in Exchange Areas where LNP or WNP is implemented, provided that such numbers have been reserved or held by the Disconnecting Code Holder for the customer prior to the request for porting, and that the customer requests the Recipient Code Holder to port such numbers at the same time as the customer (i.e, the end customer or reseller) requests the Recipient Code Holder to port In-Service numbers. Reserved and Held Telephone Numbers may also be ported between a Code Holder's Switching Entities or POIs in a single Exchange Area in the event that a Code Holder has multiple Switching Entities or POIs within an Exchange Area. Code Holders shall include such ported-in Reserved and Held telephone numbers within the quantities of Reserved and Held telephone numbers reported for the Switching Entity/POI into which the numbers are ported.
 9. Where Reserved and Held Telephone Numbers are to be ported between Code Holders, the Recipient Code Holder shall request such porting at the same time as In-Service number porting is requested.
 10. Although a Central Office (CO) Code Holder may set aside a quantity of numbers in a CO Code for the potential future use of its customers in general (rather than for a specific customer), such numbers shall not be considered as Reserved or Held Telephone Numbers.
 11. Reserved and Held Telephone Numbers that have been ported shall be treated by the Recipient Code Holder as disconnected numbers in the event that the customer for whom the numbers have been ported disconnects service or moves to another Code Holder and the Reserved and Held Telephone Numbers are not ported at the customer's request to the subsequent Code Holder.
 12. Any Reserved and Held Telephone Numbers that have been ported which are no longer required by the customer, or which are disconnected and are not placed in reserved or held status for the customer, shall be returned by the Recipient Code Holder to the CO Code Holder from which the Telephone Number was initially ported immediately after the customer advises that the Reserved and Held Telephone Numbers are no longer required (i.e., "snapback").
 13. Reserved and Held Telephone Numbers that have been ported shall not be assigned by the Recipient Code Holder to any entity other than to: (a) the customer for whom the numbers were originally ported or (b) any successor of that customer (e.g., merger, acquisition or other corporate reorganization of the customer).
 14. A ported Reserved or Held Telephone Number that is activated and then subsequently disconnected by the customer may be put into: (a) reserved or held status for the customer by the Recipient Code Holder, or (b) aging in accordance with the Aging Guidelines and subsequently snapped back to the CO Code Holder from which the Telephone Number was initially ported according to the customer's request.

15. Code Holders shall be subject to periodic audits of, and enforcement mechanisms for, compliance with the above procedures in accordance with Appendix A of the Canadian Central Office Code (NXX) Assignment Guidelines.
16. This Guideline does not affect the ability of any Code Holder to offer number reservation at tariff rates to its subscribers within a given Exchange Area served by a given Switching Entity/POI.

DEFINITIONS:

- Disconnecting Code Holder: The Disconnecting Code Holder is the Local Exchange or Wireless Carrier which is disconnecting or has disconnected the subscriber's service and telephone number(s).
- Held Telephone Number: A Held Telephone Number is a non-working number (i.e., not in-service) which has been allocated to a specific customer at the Code Holder's discretion without any payment required from the customer.
- Recipient Code Holder: The Recipient Code Holder is the Local Exchange or Wireless Carrier to which telephone number(s) are being or have been ported.
- Reserved Telephone Number: A Reserved Telephone Number is a non-working number (i.e., not in-service) which has been allocated to a specific customer under a legally binding written agreement (e.g., contract, Tariff), with or without payment to the Code Holder at the Code Holder's option.