**CRTC INTERCONNECTION STEERING COMMITTEE**

**TIF REPORT**

**Date Submitted:** 28 June 2024

**WORKING GROUP:** CSCN

**REPORT #:** 142A **File ID:** CNRE142A

**REPORT TITLE**: Status Report #2, Thousand-Block Pooling, Canadian Implementation

**OUTCOME: ONGOING**

**RELATED TASK(s) #:** 118, 119, 120

**BACKGROUND:**

On 5 February 2024, the CRTC issued Telecom Regulatory Policy CRTC 2024-26 - *Implementing thousand-block pooling*.

Paragraph 31 of the Policy directs the CRTC Interconnection Steering Committee (CISC) to:

* facilitate and monitor the implementation of TBP and assist in resolving any challenges;
* file quarterly progress reports on 30 March, 30 June, 30 September, and 30 December until TBP is operational; and
* as part of its first quarterly progress report, advise the Commission as to whether the segregation of numbers between wireless and wireline technology must be retained or whether this requirement can be eliminated as a further way to preserve numbers.

Accordingly, the CSCN, as a CISC working group, has taken on the task of providing the quarterly reports.

**RECOMMENDATIONS:**

CSCN TIF 117 working group respectfully submits this Status Report #2 pursuant to the Commission’s direction.

**ATTACHMENTS:** Status Report #2

**CRTC Interconnection Steering Committee**

**Canadian Steering Committee on Numbering**

Per para. #31 of CRTC 2024-26

Thousand-Block Pooling TIF 117

Status Report #2 – CNRE####

Final 1.0

## June 2024

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# Background

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* as part of its first quarterly progress report, advise the Commission as to whether the segregation of numbers between wireless and wireline technology must be retained or whether this requirement can be eliminated as a further way to preserve numbers.
  + This advice was provided in the 30 March 2024 quarterly report

Accordingly, the CSCN, as a CISC working group, has taken on, via TIF 117, the task of providing the quarterly reports.

The contents of this report reflects the work that CSCN has undertaken up to and including 18 June 2024.

# TIF Work Breakdown

CSCN has formed the following TIFs for industry participants to define the guidelines and procedures for TBP:

TIF 117 - TBP Implementation Monitoring

TIF 118 - Update CSCN-Administered Guidelines for Thousands-Block Pooling

TIF 119 - Report of inclusion of unused numbers from previously assigned CO Codes in pool

TIF 120 - Report on LIR expansion or Exchange Area consolidation opportunities

In addition, a “Questions Team” without a numbered TIF was formed to facilitate a common understanding of high-level requirements for the implementation of TBP.

# Questions Team

The Questions Team wrapped up on 5 April 2024.

Major work items:

* Differences between the Canadian and the US NPAC
* Forecasting requirements
* Return of contaminated blocks
* Block request order flow
* Proposed CNA web tool
* Many other lesser, but still significant details

# TIF 117 - TBP Implementation Monitoring

This TIF met on 04 and 18, June 2024 and there was additional discussion on 12 June 2024 during CSCN 129.

Quarterly reports will be submitted by 30 March, 30 June, 30 September, and 30 December until TBP is operational.

# TIF 118 - Update CSCN-Administered Guidelines for Thousands-Block Pooling

TIF 118 met on 19 April, as well as 2, 8, 16 and 28 May 2024

This TIF will update the CSCN-administered guidelines to implement TBP.

Sub-tasks:

1. Update the Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline
2. Update the Canadian Central Office Code (NXX) Assignment Guideline to incorporate pooling
3. Recommendations on CNA-required functionality to support thousand block pooling

Progress so far:

* Outstanding questions
  + Does the industry want the CNA to validate contamination level on a returned block?
  + What level of access/capability should the CNA have to validate contamination level?
* Concerns were raised regarding running with a standard of “6 months” block inventory. The proposed rule being carriers not able to request blocks unless they are within 6 months of demand exhaust of their current assignments in the given Exchange Area. This may not give enough time for carriers to prep large Exchange Areas for yearly predictable surges in demand. Several participants raised if the guidelines could address exceptions for large markets.
* Forecasting constraints will govern the minimum time frame a carrier could make requests for pool replenishment. Pool replenishment reduces working around contaminated blocks. The US standard is that a carrier may request replenishment if their blocks are not going to meet 6 months of future demand. In order to gauge the 6 month demand, forecasting will need to be done every 6 months by every carrier. Consideration will be needed to see if carriers have the resources to do a 6 month forecasting cycle, especially large carriers.
* Forecast vs. Actual data were presented from NANPA (2019-2023) and CNA (2003-2023). Actual allocation for CO Codes over this time span seems to be far below the aggregated carriers’ forecasts. Meaning the carriers overall overestimate demand by 1.5x to 3x depending on the year measured.
* A “Definitions Document” has been created. Expectation is to include any terms needing to be specifically defined so that all participants have common understanding on specific terms of art. A number of definitions have already been added to the document and the participants expect to add more terms as needed.
* Phone Number aging will need to be defined and compatible among all carriers participating in TBP. Several participants indicated they currently follow a 90 days aging period. Agreement was reached to observe a minimum 60 maximum 120 days aging period.
  + Block return process needs to be consistent with the above.
* Discussions on interactions between “Inter-Service Provider Ports” and the aging of disconnected numbers. ISP Ports are the mechanism for carriers to protect assigned numbers to themselves, for numbers in blocks where the block is to be donated back to the pool. Which carrier and how would intercepts be arranged where a disconnected number from one carrier goes back into a block that became assigned to a new carrier.
* Dips will happen either on a LSMS or local SCP. LSMS will probably handle block records (LSMS Operator will need to subscribe to receive them). Local SCPs may need updates to handle block records.
* Administrative and Test numbers will need to be disconnected timely in a TBP scenario. Carriers may not be doing this consistently right now but will need to be more diligent under TBP.
* There needs to be a process for carriers to get a number back, where an existing customer is still using a number and the carrier may have not done the ISP port or it failed in some way. Our US regulatory participant shared that in the US it has probably happened to every carrier at some time(s) and is much more likely to happen a lot when TBP starts. The industry should examine the possibility of a streamlined process for one carrier to contact another for assistance in this area.
* There was a contribution with a proposed simplified forecasting method where resellers would not report utilization as part of a forecasting process. Instead, carrier would report the quantity of numbers assigned to these resellers as “intermediate” (unless the carrier can confirm the number is in service to an “end user”) consistent with FCC 502 utilization reports. The alternative is for resellers to report utilization directly to CNA.

The group is finalizing a report related to paragraph 51 of the Policy to provide recommendations to strengthen the number assignment guidelines, focusing on preserving geographic NANP resources, both while TBP is being implemented and once it is implemented.

# TIF 119 - Report of inclusion of unused numbers from previously assigned CO Codes in pool

Meetings of this TIF and its writing teams occurred 16, 25 April and 6, 13, 24 May, 5 June and 11 June 2024.

Report that is due to the commission on 6 August 2024 covering many areas. Highlights:

* what level of contamination is acceptable;
* whether there should be a general cleanup or other process, or both, and whether the process(es) should be voluntary or mandatory;
* what other criteria may be relevant, such as the population or population growth of a given exchange;
* how the snap-back process would work with any new mechanism(s);
* limitations applicable to smaller carriers; and

The TIF meetings have considered:

* Telephone number aging (including snap-back process) is a big issue needing to be handled for TBP. TIF 118 is also working on this matter.
* While the current US documented standard is thousand-blocks with 10% or less contamination would be eligible for donation back to the pool, there have been discussions in the US about increasing the contamination threshold. The Canadian telecom industry has landed on an initial threshold of 10%.
* Carriers with long standing blocks where subscriber loss takes the contamination level to below the 10% threshold would be eligible to donate those blocks. They would first complete ISP Ports to protect the assigned TNs to themselves.
* Blocks containing a carrier’s LRN would be protected to the CO Code owner. If donating a block containing an LRN, first move the LRN to a block that carrier is keeping.
* Some carriers use unique LRNs per Exchange area. This is allowed, but all that is required is at least one LRN per LIR.
* Whether inclusion of unused numbers from previously assigned codes in the pool should be implemented at the same time as the initial implementation of TBP or in a subsequent phase as soon as possible thereafter
  + US Participants referred to provisions in the US TBCOCAG which were used to return blocks prior to opening TBP for block requests when TBP was initially implemented in the US
* Whether there should be a general cleanup or other process, or both, and whether the process(es) should be voluntary or mandatory;
  + TBP Cleanup (defined as a donation of excess blocks of inventory which are below the contamination threshold and for which the Carrier does not forecast a requirement within a specified amount of time such as 6 or 12 months) is needed..
  + If there is 2024 inventory held by a carrier and that carrier can certify there will be demand for these in 2026, suggestion is these blocks not be donated rather than different blocks being allocated later. (both dates hypothetical, but given for example purposes) There should be recommended best practices in this area to increase efficiency.
  + Discussion of standards to cover both rural where there is low demand, and large metros (like Montreal, Toronto or Vancouver) where there is high demand.
  + Discussion of workload and timing for mass block returns to the pool administrator which added to the recommendation of a phased TBP implementation.
  + Discussion of how carriers would return excess blocks/inventory that were assigned according to earlier projections when those projections are not met. There need to be clear standards so inventory can be counted accurately to prevent or limit this scenario from happening. Also, Canada could model an audit process similar to the US, that can be invoked if this becomes problematic.
  + The CSCN decided to continue with the existing reclamation process for thousands-blocks that is used today for CO Codes, which are not put in service within 6 months of the Effective Date.
* Potential suggested roll out order of operations/milestones:
  + 1. Forecast report date
  + 1a. Pooling Administrator publishes list of Exchange Areas with anticipated demand
  + 2. TB protection donation/disconnect identification date
    - A designated block flagged for return should be retained until all numbers have completed their aging cycle.
  + 3. TB Disconnection
  + The interval between the Thousands-Block Protection and Donation/Disconnect Identification Date and the Thousands-Block Disconnect Date shall be no less than 30 calendar days. 4. PA assessment of Industry Inventory Surplus/Deficiency
  + 5. Implementation and pool start/allocation date
* Further discussions of best way to meet large metro demand when considering returns.
  + Contribution that it may be advantageous to have 3 demand classifications of Exchange Areas– Low: 6 months to exhaust; Medium: 9 months to exhaust; High: 12 months to exhaust.
  + The CSCN supports the return of blocks to be optional initially, but may become mandatory at a later date.
* Contributor suggesting block returns initially launch in a limited number of Exchange Areas.
* New numbering resources can only be assigned to a carrier in an Exchange Area where TBP has been implemented if they are capable of accepting block assignments.
* This approach could decouple the need for all carriers in all regions to have inventory management systems in place on day 1.

# TIF 120 - Report on LIR expansion or Exchange Area consolidation opportunities

TIF Opening call on 12 April 2024. Initial TIF Form presented, CSCN agreed to accept this as a CSCN TIF.

TIF 120 form was sent to the CISC for consideration on 1 May 2024.

Contributions Development Team (CDT) formed, Bell to work on an initial contribution for review and contributions from other members of the CDT.