Canadian Radio-television and Telecommunications Commission
Conseil de la radiodiffusion et des télécommunications canadiennes

Telecom Decision CRTC 2025-335

PDF version

Gatineau, 8 December 2025

Public record: 8621-C12-01/08

CISC Canadian Steering Committee on Numbering – Consensus report CNRE152A – Implementing a 1+14 format for non-geographic (6YY) numbers

Summary

Telecommunications numbering resources are a finite resource and critical to our modern communications system. The growing use of non-voice services, like machine-to-machine communications (M2M) and Internet of Things (IoT) applications are increasing the demand for telephone numbers not linked to a specific geographic region.

The Commission relies on the Canadian Steering Committee on Numbering (CSCN) to provide expert advice on numbering matters within the Commission's jurisdiction. In June 2025, the CSCN filed a report to provide the Commission with recommendations on how to increase Canada's supply of 6YY numbers by expanding the number format from 1+10 digits to 1+14 digits.

In this decision, the Commission approves expanding the format for Canada's 6YY numbers to 1+14 digits. This expansion will only apply to 6YY numbers used for M2M/IoT applications. It will not affect the telephone numbers Canadians use to communicate with one another or impact the 1+10 digit 6YY numbers already in use. Accordingly, the implementation of the expanded 6YY number format will be seamless for Canadians.

Background

1. The Commission administers telephone numbers and other numbering resources pursuant to section 46.1 of the *Telecommunications Act*. It works with various partners, including the Canadian Numbering Administrator (CNA) and the North American Numbering Plan (NANP) Administrator, to organize and manage numbering resources for Canada and other countries within the NANP.[1]

[1] The NANP is a telephone numbering system that assigns unique 10-digit numbers, including a three-digit area code and a seven-digit local number, to facilitate call routing across participating countries like the United States, Canada, and several Caribbean nations.

2. In recent years, many new services that use numbering resources have emerged. These include non-voice services such as machine-to-machine communications (M2M) and Internet of Things (IoT) applications. These technologies are used for devices that share data on their own, such as connected vehicles, smart appliances, or home security systems. These devices often need numbering resources to work with carrier networks and their support and billing systems.

3. Under the NANP, Canada has been assigned a set number of area codes. Area codes are considered geographic when they are linked to a specific area and non-geographic when they can be used anywhere in Canada.

4. Canada's non-geographic area codes are known as 6YY codes. They currently include area codes 622, 633, 644, 655, 677, and 688. They are mainly used for M2M/IoT applications. Numbers within these area codes currently use a 1+10 format represented as 1+6YY-DEF-XXXX, where:

    - the 1 is the country code for all NANP countries;
    - 6YY represents the area code (ranging from 622 to 688);
    - DEF represents the Central Office (CO) code (ranging from 200 to 999); and
    - XXXX represents the individual line number (the unique number for the individual phone line, ranging from 0000 to 9999).

5. Because of the increasing use of M2M/IoT applications, the demand for Canadian 6YY numbers is growing quickly. Measures to increase the supply of these numbers are necessary to help ensure that Canada continues to have enough of these numbers to meet demand.

The NANP expansion plan

6. The NANP expansion plan was created to increase the pool of available numbers by adding extra digits to North American geographic and non-geographic number formats. The NANP Administrator will trigger this expansion when it becomes necessary to increase the North American numbering pool, but countries in the NANP may choose to switch to an expanded format earlier if needed.

Telecom Decision 2025-224

7. In *CISC Canadian Steering Committee on Numbering – Consensus report CNRE138B – Methods to address the high assignment rate of non-geographic (6YY) CO codes*, Telecom Decision CRTC 2025-224, 2 September 2025 (Telecom Decision 2025-224), the Commission adopted recommendations set out in the CSCN's report CNRE138B – *Methods to Address the High Assignment Rate of Non-Geographic (6YY) CO Codes* and directed the CNA to reserve 6YY codes 677 and 688 in preparation for the future implementation of an expanded format for 6YY numbers. It

also noted the CSCN's estimate that implementing an expanded 1+12 or 1+14 6YY number format could take two to three years.

The report

8. On 12 June 2025, the Commission received CSCN consensus report[2] CNRE152A – *Supplemental Report for Methods to Address the High Assignment Rate of Non-Geographic (6YY) CO Codes* (the report).

9. The report recommends adopting a 1+14 format for Canada's 6YY numbers, beginning with 6YY codes 677 and 688, within three years of a Commission decision. This approach builds on the CSCN's recommendations in CNRE138B, approved by the Commission in Telecom Decision 2025-224.

10. The CSCN submitted that a 1+14 format would provide 100 times more numbers than the 1+12 digit numbers and 10,000 times more numbers than the current 1+10 format, and that it would have a significantly long lifespan based on current projections. According to a January 2025 numbering forecast, the CSCN estimates that industry demand will require approximately 84.3 million 6YY numbers over the next 22 years. Implementing the 1+14 format would meet this projected demand and leave more than 99.9 billion 6YY numbers available per 6YY code.

11. No carriers that participated in CSCN discussions were opposed to the implementation of the 1+14 format.

1+14 format

12. The CSCN recommended that the 1+14 format for 6YY numbers be represented as 1+6YY-DEF-GHIJ-XXXX, where:

    - the 1 is the country code for all NANP countries;
    - 6YY represents the area code;
    - DEF represents the CO code (ranging from 000 to 999);
    - GHIJ represents the block (ranging from 0000 to 9999), which constitutes the expansion from 1+10 to 1+14; and
    - XXXX represents the individual line number (the unique number for the individual phone line, ranging from 0000 to 9999).

13. Currently, both geographic and 6YY CO codes follow the NXX format, where the first digit (N) ranges from 2 to 9 and the following two digits (X) each range from 0 to 9, yielding combinations from 200 to 999. The digits 1 and 0 are currently

---

[2] A consensus report is a report where all members of the submitting working group agree on the content and the recommendations.

excluded from the N position in both geographic and 6YY CO codes to avoid routing errors within the Public Switched Telephone Network.

14. The CSCN recommended adopting the XXX format for CO codes within the 1+14 format for 6YY numbers. Unlike geographic numbers, 6YY numbers do not require switch provisioning or number portability. This allows all combinations from 000 to 999 to be used. This change would expand capacity from 80 billion to 100 billion numbers for each 6YY area code.

15. The CSCN indicated that the 100 billion numbers within a 1+14 format area code could be divided into blocks ranging from 1,000 to 100 million numbers, and that the smaller blocks would allow for more efficient administration. However, the CSCN considered a 10,000-number block to be the preferred block size for the 1+14 format, because non-geographic numbers are not limited to exchange areas and can be utilized Canada-wide. As such, a smaller block size of 1,000 numbers would not be more efficient when considering the additional administrative burden. Consequently, under the expanded 1+14 format, carriers would request, and the CNA would assign, resources as blocks within a CO code, represented in bold in the following: 1+6YY-**DEF**-**GHIJ**-XXXX.

Alignment with United States/NANP expansion

16. The CSCN stated that Canada and the United States can establish their own formats for their respective non-geographic numbers[3] independently. Roaming agreements are based on the International Mobile Subscriber Identity (IMSI)[4] rather than telephone numbers, and service providers typically use non-geographic numbers for their internal routing. Therefore, differences in number length, block size, or format among NANP countries are not expected to affect roaming between Canada and the United States for devices using non-geographic numbers.

CSCN recommendations

17. In light of the above, the CSCN recommended that:

- the CNA and service providers seeking new 6YY resources must be able to use the expanded 1+14 format no later than three years after the date of this decision;

---

[3] The United States uses 5YY as its non-geographic area codes.

[4] An IMSI is a unique 15-digit number used for network authentication and identification. It specifies the wireless subscription, the home network associated with that subscription, and the home country of the network. An IMSI is composed of three parts: the Mobile Country Code, the Mobile Network Code, and the Mobile Subscription Identification Number. It is not intended for dialing purposes.

- the CNA and service providers implement the expanded digit for 6YY codes 677 and 688 in the format of 1-6YY-XXX-XXXX-XXXX where X is a number ranging from 0 to 9; and
- the CNA and service providers implement a block size of 10,000 numbers in 1+14 6YY numbers, resulting in the administered digits being the bolded characters in the following format: 1+6YY-**DEF-GHIJ**-XXXX.

Commission's analysis

18. The CSCN includes Canadian telecommunications service providers and experts in Canadian numbering. The Commission is of the view that the report's recommendations, which were approved by consensus, accurately reflect the general views of the telecommunications industry.

19. The Commission notes that the implementation of the recommended 1+14 format will apply only to 6YY numbers used for non-voice M2M/IoT services. This change will not affect geographic numbers or existing 1+10 6YY numbers currently in use.

20. Regarding the report's recommendation to adopt the XXX format in place of the NXX format, the Commission notes that this change will significantly increase the quantity of numbers available within each 6YY area code.

21. Regarding the report's recommendation that the CNA assign 6YY numbers in blocks of 10,000, the Commission considers that this approach achieves a balance between efficient resource utilization, minimal infrastructure impact, and reduced administrative burden on the CNA.

22. Regarding the matter of alignment with a potential NANP expansion, the Commission notes that NANP countries can manage their non-geographic numbering separately, allowing Canada to implement an expanded 6YY numbering format independently of the United States and other NANP countries.

23. The Commission notes that the implementation of the expanded numbering format will occur gradually. Sustainable numbering management practices require that available 1+10 numbers continue to be assigned until the existing pool is fully utilized, regardless of when the 1+14 format is introduced. Once the 1+10 resources are exhausted, all new assignments will be made using the 1+14 format.

24. Adopting these measures would necessitate updates to the guidelines used in the administration of numbering resources. The Commission therefore requests that the CSCN complete such updates, consistent with the report's recommendations.

25. Implementing a 1+14 format will increase the pool of 6YY numbers which will help Canadian carriers keep up with M2M/IoT market demands without depleting the supply of geographic telephone numbers available to Canadians.

Conclusion

26. In light of all of the above, the Commission directs the Canadian Numbering Administrator and Canadian carriers to transition to a 1+14 format for 6YY numbers, beginning with 6YY codes 677 and 688, by **8 December 2028**. The adopted 1+14 format will follow the structure 1-6YY-XXX-XXXX-XXXX, where each X represents a digit from 0 to 9. Numbering resources will be assigned in blocks of 10,000 numbers.

27. The Commission requests that by **8 June 2028**, the CSCN file amendments to the relevant numbering guidelines to reflect the determinations above.

28. Furthermore, the Commission notes that any carrier that has not transitioned to a 1+14 format for 6YY numbers by the transition date risks being unable to receive 6YY number assignments by the CNA.

Secretary General