



Commission for
Communications Regulation

Information Notice

Conserving Geographic and Mobile Numbers

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An Coimisiún um Rialáil Cumarsáide

Commission for Communications Regulation

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1 Introduction

1. Under the Communications Regulation Act 2002, ComReg has the statutory function to manage the national numbering resource with the corresponding objective to ensure its efficient management and use. A key part of this function is to ensure that a sufficient quantity of numbers are available, now and in the future, to meet demand from providers of publicly available electronic communications services and networks.
2. Demand from operators in the Irish market, for Geographic and Mobile numbers for telecommunications services, continues to grow. In the not too distant future, additional demand may also be driven by the growth of emerging services and technologies such as over-the-top (OTT) services and machine-to-machine (M2M) communications. If the demand for numbers continues to grow at its current pace, and the forecasted demand from emerging services and technologies becomes a reality, changes to both Geographic and Mobile numbers may prove necessary.
3. Number changes are generally disruptive and very costly, not only to the immediate telecoms industry and its customers but also to the wider economy. For example, Europe Economics estimated in 2011 that any change to Dublin “01” numbers would cost approx. €337 million¹, while Analysys Mason predicts that any change to Mobile numbers could cost as much as €650 million². Therefore, any changes to Geographic and Mobile numbers should be avoided where possible and measures to ensure efficient usage should be put in place to mitigate the need for changes in the short to medium term.
4. In 2013, ComReg expressed its views^{3 4} that the introduction of number conservation measures is essential in order to avoid number changes and is in line with ComReg’s objective to ensure the efficient management and use of numbers. Further to that objective, ComReg engaged Analysys Mason to advise on the most effective number conservation measures and to liaise with the major fixed-line and mobile operators and with ComReg regarding the effective implementation of such measures.

¹ ComReg Document 11/68a – A Report for ComReg: International Access to Irish Non-Geographic Numbers – published 26 September 2011.

² ComReg Document 16/20a – Report for ComReg: Conservation measures to meet future demand for mobile numbers – published 11 March 2016.

³ ComReg Document 13/121 – The Evolution of Geographic Telephone Numbering in Ireland (Response to Consultation) – published 19 December 2013.

⁴ ComReg Document 13/109 – Numbering for Machine-to-Machine Communications (Response to Consultation) – published 22 November 2013.

5. Analysys Mason has since produced two reports which set out its recommended measures for conserving Geographic and Mobile numbers. Once correctly implemented, these measures should ensure that both Geographic and Mobile number resources are managed and used in the most efficient way possible, thereby mitigating the need for future number changes. Both reports are published in parallel with this Information Notice^{5 6}.
6. Analysys Mason and ComReg also met with the larger fixed line operators⁷ and mobile operators⁸ on several occasions, in order to understand and assess their current business practices and number management processes and to discuss the impact any possible conservation measures could have on their practices and/or processes. These operators currently hold 84% (11 million) of all assigned Geographic numbers and 88% (20 million) of all assigned Mobile numbers.

⁵ ComReg Document 16/20a - Report for ComReg: Conservation measures to meet future demand for mobile numbers – published 11 March 2016.

⁶ ComReg Document 16/20b - Report for ComReg: Conservation measures to meet future demand for geographic numbers – published 11 March 2016.

⁷ BT Ireland, Eir, Vodafone and Virgin Media.

⁸ Three, Meteor and Vodafone.

2 Taking the Recommendations Forward

2.1 Conservation Measures for Geographic Numbers

7. In its report, Analysys Mason recommends the following number conservation measures for Geographic numbers:
 - i. Recovery by ComReg of existing unused number blocks for future reassignment;
 - ii. Returning ported-in numbers to the original block holder once these numbers are no longer in use and have exited the quarantine process;
 - iii. The introduction of an overall utilisation target for applicants (such that additional numbers are not assigned by ComReg unless the target is being met);
 - iv. Setting an upper bound guideline for the amount of numbers which can be provided to consumers and businesses by operators;
 - v. Using the opportunity presented by current changes to the systems supporting geographic number portability (GNP) to undertake preparatory work to support number pooling, should it be necessary in the future; and
 - vi. Introducing more effective monitoring and auditing processes to accurately forecast the country's numbering needs.
8. These proposed measures have been presented to each of the major fixed-line operators and have been agreed in principle. Implementing some of these measures will take time and ComReg will continue to liaise with operators in this regard.
9. In addition, operators' capabilities to: (i) return to the number block holder any ported-in numbers that have exited the quarantine process; and (ii) support number pooling (should it become necessary in the future), have been factored into the functional specification for a new GNP system that is targeted for introduction later in 2016.

10. As part of its preparations for this work programme, ComReg completed an audit of operator utilisation of Geographic numbers in the Dublin “01” area, in 2015. This audit resulted in ComReg recovering a significant number of unused “01” number blocks. This action alone has had a significant impact on the projected date of exhaustion of Geographic “01” numbers - i.e. applying maximum consumption figures, the projected date of exhaustion of “01” Numbers has been pushed out from c.2020 to c.2029. Once the other recommended conservation measures are correctly implemented in a timely manner then this projection might even prove conservative.
11. Finally, ComReg will shortly commence an audit of Geographic number utilisation in a small number of areas where such numbers are under threat of exhaustion, in the short-to-medium term. ComReg looks forward to co-operation from operators in completing these audits.

2.2 Conservation Measures for Mobile Numbers

12. In its second report, Analysys Mason recommends the following number conservation measures for Mobile numbers:
 - i. Recovery by ComReg of existing unused number blocks for future reassignment;
 - ii. More effective management of the quarantine process, returning numbers to “free for assignment” efficiently;
 - iii. Returning ported-in numbers to the original block holder that are no longer in use and have exited the quarantine process;
 - iv. The introduction by mobile operators of improved inventory/distribution management processes and systems so as to reduce the quantity of numbers “in-channel”;
 - v. The introduction of an overall utilisation target (such that additional numbers are not assigned by ComReg unless the target is being met); and
 - vi. Introducing more effective monitoring and auditing processes to accurately forecast the country’s numbering needs.

13. The proposed conservation measures were also presented to each of the mobile operators and they have broadly agreed, in principle. Implementation of measures (particularly with regard to improving operators' inventory/distribution management processes and systems) will differ between operators and ComReg will continue to engage with operators on these matters.
14. On the matter of returning ported mobile numbers that are no longer in use back to the block holder, ComReg notes that this process was agreed by operators in the past but was not implemented. ComReg understands that this issue was discussed recently by the industry Mobile Number Portability Committee. Consideration is ongoing as to whether the process should be automated or completed on an occasional manual basis. ComReg has no strong view on the operational arrangements for this step and will follow up with the Committee Chairman in due course for a report on progress towards implementation of the facility.

2.3 Charging for Numbers

15. The possibility of ComReg charging fees for granting rights of use for numbers was also examined by Analysys Mason. While the introduction of charges is not recommended at this time, Analysys Mason advises that charges may have to be introduced as a means of conserving numbers, if its other recommended conservation measures should prove ineffective. ComReg also notes that several Member States currently charge for numbers, with some charges specifically structured to encourage efficient usage by operators. Any proposal to charge fees for granting rights of use for numbers would form part of a public consultation to amend the Numbering Conditions of Use⁹.

2.4 Future Consultation

16. The larger fixed-line operators and mobile operators have agreed in principle that they will implement the conservation measures set out above, on a voluntary basis. ComReg does not intend to consult further on the details of implementation but will continue to liaise with individual operators on their progress towards implementation.

⁹ ComReg Document 15/136 – Numbering Conditions of Use and Application Process – published 22 December 2015

17. ComReg may consult further on the possible introduction of any numbering conditions which would set mandatory targets for number utilisation (i.e. the percentage of assigned Geographic or Mobile numbers that ComReg expects to be actively in use before any new applications for numbers will be processed). Any such proposal would form part of a public consultation to amend the Numbering Conditions¹⁰.

2.5 Industry Meeting

18. ComReg has already advised all operators of an industry meeting on numbering at **10.00 on Tuesday 15 March 2016** in ComReg's offices. At that meeting, Analysys Mason and ComReg will present on the process to date and the necessity for all operators to be prudent in managing their number holdings to avoid costly and disruptive numbers changes.

19. ComReg will also provide further information on how it and the operators can implement these number conservation measures going forward. ComReg will also present in general terms on the bilateral meetings that have already taken place.

20. This and subsequent meetings on numbering will also consider issues raised by Analysys Mason that, whilst not part of the core recommended conservation measures, could nevertheless impact on the efficiency of number usage and should therefore be considered further by ComReg and industry. These include:

- The impact of de-facto mapping of 08X network access codes to specific mobile operators;
- The impact of historic Minimum Numbering Areas within the existing Area Codes on efficient use of numbers;
- Timelines for opening up new number blocks on all networks; and
- The potential impact of emerging services, such as those mentioned earlier, on demand for numbers.

ComReg looks forward to full engagement with industry on these matters.

¹⁰ ComReg Document 15/136 – Numbering Conditions of Use and Application Process – published 22 December 2015