

# **Numbering**

Irish Telecommunications sector

## Periodic Report

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# **Content**

Section			Page	
1	Inti	oduction	4	
2	Ма	Managing Ireland's Numbering Scheme 5		
3	Numbering Developments and Challenges		8	
	3.1	Geographic Numbers	8	
	3.2	Mobile Numbers	12	
	3.3	Non-Geographic Numbers (NGNs)	14	
	3.4	Short codes	15	
4	Numbering Work Streams		16	
	4.1	Numbering Conditions	16	
	4.2	Non-Geographic Number review	16	
	4.3	Mobile Numbering Review	16	
5	Numbering Statistics		18	
	5.1	Geographic Numbers	18	
	5.2	Mobile Numbers	18	
6	Looking Forward			
7	Feedback21			

## 1 Introduction

- 1. The Commission for Communications Regulation ("ComReg") has the statutory function to manage the State's national numbering resource, under section 10 of the Communications Regulation Act 2002 ("2002 Act") and pursuant to ComReg's related objectives as mainly set out in section 12 of the 2002 Act and regulation 16 of the Framework Regulations 2011. ComReg also takes full account of any relevant policy directions issued by the Minister for Communications, Climate Action and Environment under section 13 of the 2002 Act.1
- 2. As part of its number management function, ComReg's numbering unit performs ongoing operational and strategic management of the National Numbering Scheme ("the Scheme") which comprises all geographic numbers, mobile numbers, non-geographic numbers, premium rate service numbers, short codes, and network routing codes.
- 3. Telephone numbers and codes are essential to the provision of electronic communications services. They enable effective routing of national and international communications and support the proper functioning of fixed and mobile billing and settlement regimes. They also provide information to the caller on the service called, the price of the call, and location of the called party.
- 4. It is therefore critical that these resources are managed in an efficient and effective way. ComReg's number management function is underpinned by its statutory objectives which in summary are to promote competition, to contribute to the development of the internal market, to promote the interests of users within the Community, and to ensure the efficient management and use of numbers. The numbering resource is also finite and ComReg must therefore seek to ensure that enough numbers are available to meet industry and end-user demand, now and in future. This includes taking all reasonable and proportionate measures aimed at avoiding numbers changes, which are generally disruptive and costly both to industry and consumers.
- 5. This report presents an overview of ComReg's activity in managing the Scheme, including key developments and challenges, current work streams and strategic goals, and statistics. ComReg will periodically publish revised versions of this report, as appropriate.

<sup>&</sup>lt;sup>1</sup> The legal framework and key statutory objectives relating to number management are set out in Appendix 8 of ComReg 15/136: Numbering Conditions of Use and Applications Process document.

# 2 Managing Ireland's Numbering Scheme

6. The core elements and supporting processing of ComReg's management of the Scheme are shown in Figure 1.



Figure 1: Management of the National Numbering Scheme

- Core Elements and Supporting Processes

#### 7. The core elements are:

1) **Managing the design of the Scheme:** Ensuring that enough numbers are available to meet industry and end-user demand, for all relevant electronic communications services now and in future, while also promoting

competition and the interests of users, and contributing to the development of the internal market.

- 2) **Establishing conditions for numbers:** ComReg's Numbering Conditions of Use and Applications Process document<sup>2</sup> ('Numbering Conditions') contains the key statutory provisions relating to number management, the general and specific conditions attaching to the use of numbers, and the eligibility criteria and administrative process for being granted rights of use for numbers in Ireland. ComReg reviews the Numbering Conditions at appropriate intervals and will revise the document as may be required.
- 3) Administering the Scheme: Assigning new numbers (including geographic, non-geographic, and mobile) and short codes to operators and ensuring that those numbers are opened on all networks (national and international) in a timely manner.
- 4) **Ensuring the efficient use of numbers:** Conducting an audit of assigned numbers that are in use, assigned numbers that are not in use, and numbers that are unassigned and, where necessary, implementing such number conservation measures as may be considered justified and proportionate.
- 8. The above core elements are supported by the following six supporting processes:
  - i. Assignments database: The numbering unit maintains and publishes a central database of all assignments of numbers, short codes and network identifiers in Ireland. These assignments are available on the ComReg website<sup>3</sup> and are updated in real time.
  - ii. **Ensuring effective number portability processes:** regulation 25 of the Universal Service Regulations<sup>4</sup> requires operators to support number portability i.e. to allow subscribers to retain their numbers when switching between service providers. ComReg recently facilitated discussions on the development and implementation of a new Fixed Number Portability process.<sup>5</sup>
  - iii. **International coordination:** At the European level, the numbering unit participates in CEPT ECC Working Groups and Project Teams responsible for developing harmonised regional policies in numbering, naming and addressing. ComReg also participates in BEREC Expert Working Groups

<sup>&</sup>lt;sup>2</sup> ComReg 15/136: Numbering Conditions of Use and Applications Process document.

<sup>&</sup>lt;sup>3</sup> See <a href="https://www.comreg.ie/industry/licensing/numbering/">https://www.comreg.ie/industry/licensing/numbering/</a>

<sup>&</sup>lt;sup>4</sup> S.I. No. 337 of 2011, the European Communities (Electronic Communications, Networks and Services) (Universal Service and Users' Rights) Regulations 2011.

<sup>&</sup>lt;sup>5</sup> ComReg 17/07: Information Notice Status Update: Industry Project for replacement of Central Reference Database for Fixed Number Portability.

- and EC workshops on e.g. eCall (automated emergency calling in cars), Machine-to-Machine ('M2M') and Over-The-Top ('OTT') services.
- iv. **Industry liaison:** At the national level, the numbering unit chairs a Numbering Forum to discuss numbering policy and operational issues in Ireland. The numbering unit also works directly with operators to get new numbers opened promptly on networks and to resolve issues such as serious occurrences of misdialling.<sup>6</sup>
- v. **Impact assessment and consultation:** ComReg is required to publicly consult on changes to the Scheme and the numbering unit also conducts public consultations on issues relating to its number management function, including any proposed measures which it considers to be justified and proportionate. Any significant new measures are generally considered in a Regulatory Impact Assessment (RIA)<sup>7</sup> which identifies and assesses the likely impact of any such measure on all interested parties, including consumers, and on competition.
- vi. **Ongoing research:** The numbering unit researches how electronic communications markets and technology are evolving and the likely impact on numbering resources. Current research streams include assessing the numbering requirements for M2M, Internet-of-Things ('IoT') and OTT services, as well as the Over-The-Air provisioning of 'profiles' including numbers for remotely reprogrammable SIMs. How numbers are used is also of interest e.g. our recent review of Non-Geographic Numbers ('NGN's) included consumer and organisational surveys, through which we sought to gain greater understanding of Irish consumer and organisational attitudes and behaviours in respect of NGNs.
- 9. Clearly there are many facets to ComReg's number management function and all of its work in this area evolves from and is linked to the core elements and processes as outlined above. The following chapter highlights the developments and challenges that the numbering unit is currently addressing.

7

<sup>&</sup>lt;sup>6</sup> A recent example of a misdialling issue occurred in the Westport area. A UK TV channel displayed a telephone number (that started with 098) for a premium rate service. Some Irish callers to that number did not include the 0044 UK prefix, and because of this certain Westport landlines (which also start with 098) received calls looking to connect to the UK premium rate service.

<sup>&</sup>lt;sup>7</sup> ComReg 07/56a: Guidelines on ComReg's Approach to Regulatory Impact Assessment

# 3 Numbering Developments and Challenges

### 3.1 Geographic Numbers

10. Geographic (or landline) numbers relate to specific geographic areas in that part of the number digit structure contains geographic significance (e.g. 01 for Dublin). Geographic numbers are structured as follows: area code (2-4 digits) + 5-7 digit subscriber number (see Figure 2).

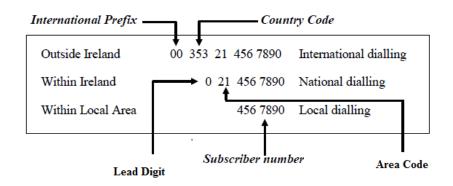


Figure 2: Geographic Number Structure

- 11. As of November 2017, rights of use for 12,881,200 geographic numbers had been granted to operators in Ireland, who in turn provide those numbers to their customers as part of their service offering.
- 12. The geographic numbering structure is essentially unchanged since ComReg's predecessor, the ODTR<sup>8</sup>, took on the numbering management role in 1997. The principal reason for maintaining the geographic number structure is to avoid widespread disruption to consumers.
- 13. The numbering unit routinely audits geographic number assignments to ensure there is sufficient number availability for current and future requirements and, where required, ComReg will take action to conserve geographic numbers in any areas where there is a risk of number exhaustion. Number changes are made only

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<sup>&</sup>lt;sup>8</sup> Office of the Director of Telecommunications Regulation.

- where geographic numbers for a particular area code face exhaustion; capacity-driven number changes took place in 2003<sup>9</sup>, 2006<sup>10</sup> and 2009<sup>11</sup>.
- 14. The quantity of geographic numbers available for assignment varies according to the area code and the length of the subscriber number (which varies between five and seven digits, with the latter having the most numbers available).
- 15. In the period 2015 and 2016, the numbering unit conducted an audit of geographic number assignments in order to identify and mitigate the risk of potential number exhaustion in certain area codes. The audit focussed on the Dublin '01' area code and eight other area codes considered at risk of number exhaustion (on the basis that 65% or more of all available geographic numbers for those area codes had already been assigned). The audit prompted the application of conservation measures<sup>12</sup> including, in the first instance, that unused numbers be recovered from operators.
- 16. The recovery of unused geographic numbers has successfully reduced the total amount of assigned geographic numbers in the nine area codes at issue (see Figure 3). It has also extended ComReg's forecasts as to when geographic numbers for the nine area codes will be exhausted. ComReg now forecasts that Dublin '01' numbers are likely to be exhausted by 2028 and that geographic numbers in the other eight areas codes are likely to be exhausted over a forecast time period ranging from three years at the earliest (for the "0404" and "047" area codes) to eighteen years at the latest (for the "061" area code) (see Figure 4).

<sup>&</sup>lt;sup>9</sup> Letterkenny / Buncrana / Dungloe / Donegal /Sligo / Boyle / Carrick-on-Shannon / Manorhamilton (07X), Ballinrobe / Castlebar / Castlerea / Athlone / Ballinasloe / Portumna / Roscommon (09X), Navan / Enfield (046, 040), Carlow / Athy / Baltinglass (0503, 0507, 0508) and Kilkenny (056).

<sup>&</sup>lt;sup>10</sup> Westmeath (044), Portlaoise / Abbeyleix (0502), Tullamore (0506), Birr (0509), Wexford (053), Enniscorthy / Ferns (054) and Gorey (055).

<sup>&</sup>lt;sup>11</sup> Bandon (023), Longford / Granard (043), Clonmel / Cahir / Killenaule (052) and Killarney / Rathmore (064).

<sup>&</sup>lt;sup>12</sup> ComReg 16/20: Information Notice - Conserving Geographic and Mobile Numbers

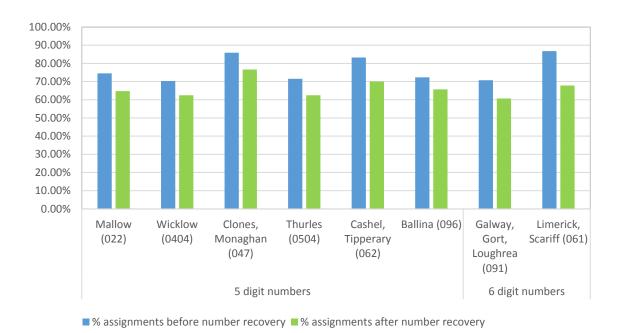


Figure 3: Percentage of number assignments before and after number recovery in eight areas (excluding Dublin)

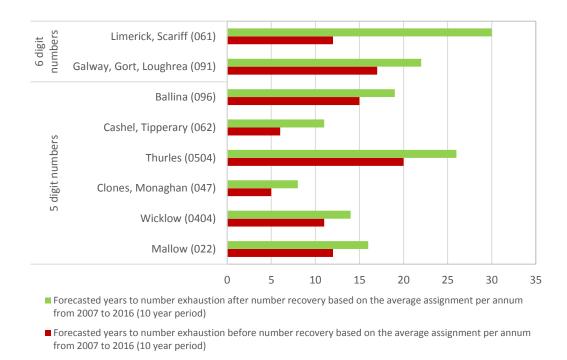


Figure 4: Forecasted years to number exhaustion before and after number recovery in eight areas (excluding Dublin)

- 17. If further geographic number conservation measures are implemented and fully adopted by industry then it should be possible to further push out the dates by which all geographic numbers in any particular area code become exhausted. Indeed it may be possible, though again only with the full support and cooperation of industry, to permanently or near permanently push out the dates by which all geographic numbers become exhausted so that the need for number changes is completely avoided. This remains an active matter for ComReg.
- 18. ComReg, pursuant to its statutory objective to ensure the efficient use of the national numbering resource and as part of its imminent public consultation on the review of its Numbering Conditions (see section 4.1), will consider the possible introduction of a number 'utilisation threshold' for operators for rights of use for geographic numbers (and mobile numbers) so as to address the problem of inefficient number utilisation. Under such a utilisation threshold, no new geographic numbers would be assigned to any undertaking unless that undertaking had met its utilisation target for numbers already assigned to it – i.e. an undertaking must use enough of its existing geographic numbers before it will be assigned any new numbers. ComReg would note, in this regard, that even a modest improvement in the efficiency of number utilisation could have a significant impact in terms of ensuring that enough geographic numbers are available to meet demand, now and in future, which would be good news for industry and society at large.
- 19. Looking at trends in geographic number trends, the volume of fixed-line subscriptions has been declining since 2014 (from 1.53m subscriptions in Q4 2014 to 1.48m in Q4 2016<sup>13</sup>) but there is still a comparatively high volume of geographic number assignments (12.86 million in 2016). Demand for geographic numbers remains high because of the roll-out of networks and customer churn (switching between fixed-line operators). ComReg, again in accordance with its objective to ensure the efficient use of the national numbering resource, will continue to monitor geographic number assignment levels and will consider and implement such conservation measures<sup>14</sup> as are justified and proportionate.
- 20. ComReg will also highlight any potential geographic number changes as soon as possible and, if any number changes are required, will take on a central coordination role, working with industry to communicate and complete any changes in a timely manner and with minimum disruption.

<sup>&</sup>lt;sup>13</sup> ComReg 17/15r: Quarterly Key Data Report Q4 2016

<sup>&</sup>lt;sup>14</sup> ComReg 16/20: Information Notice - Conserving Geographic and Mobile Numbers

#### 3.2 Mobile Numbers

- 21. Mobile services are now widespread in Ireland and globally as more people and businesses require connectivity for digital devices whilst on the move. Technology and market developments in areas such as OTT, M2M and IoT mean that other types of electronic communications services may require mobile numbers, resulting in even greater demand for what is, absent any number changes, a finite amount of numbers.
- 22. The numbering unit grants rights of use for mobile numbers from five ranges 083, 085, 086, 087 and 089. A mobile number consists of a 3 digit '08X' access code followed by a 7 digit subscriber number. Access to mobile voicemail is provided by placing the digit '5' at the beginning of the 7 digit subscriber number.
- 23. Analysys Mason, in a 2015 study for ComReg,<sup>15</sup> found that 23.6m mobile numbers had been assigned in Ireland as of the end of Q1 2015, across the five ranges. This contrasts with the total number of mobile subscriptions of 5.77m (including mobile broadband and M2M) and it means that there are approximately four times more assigned mobile numbers than there are mobile subscriptions.
- 24. This finding by Analysys Mason highlighted inefficiencies in mobile operators' systems that needed to be addressed and that many assigned mobile numbers were not been used efficiently. Analysys Mason predicted that all mobile numbers in the five "08X" ranges would be exhausted by 2023 unless ComReg implemented conservation measures.
- 25. In 2016, operators agreed to implement mobile number conservation measures. <sup>16</sup> These included the recovery of unused number blocks, more effective management of the quarantine process, the repatriation of ported numbers that are no longer in use within 12 months of exiting quarantine, and the introduction by mobile operators of improved inventory/distribution management processes and systems so as to reduce the quantity of "in-channel" numbers. Proper implementation of, and full adherence to, all of these conservation measures should extend the date by which all mobile numbers in the five "08X" ranges will be exhausted beyond 2023.
- 26. Furthermore, ComReg, pursuant to its statutory objective to ensure the efficient use of the national numbering resource and as part of its imminent public consultation on the review of its Numbering Conditions (see section 4.1) will consider the possible introduction of a number 'utilisation threshold' for operators for rights of use for mobile numbers (and geographic numbers) so as to address the problem of inefficient number utilisation. Under such a utilisation threshold, no new mobile numbers would be assigned to any undertaking unless that

12

<sup>&</sup>lt;sup>15</sup> ComReg 16/20a: Report for ComReg: Conservation measures to meet future demand for mobile numbers

<sup>&</sup>lt;sup>16</sup> ComReg 16/20: Information Notice - Conserving Geographic and Mobile Numbers

undertaking had met its utilisation target for mobile numbers already assigned to it – i.e. an undertaking must use enough of its existing mobile numbers before it will be assigned any new mobile numbers. ComReg would note, in this regard, that even a modest improvement in the efficiency of number utilisation could have a significant impact in terms of ensuring that enough mobile numbers are available to meet demand, now and in future.

- 27. In terms of potential future demand for mobile numbers, significant demand is expected from M2M, IoT and OTT services. The automotive and transportation sector is projected to account for over 60% of total cellular M2M connections' worldwide throughout the period 2014 to 2025, reaching approximately 900 million connections by 2025.<sup>17</sup> In addition, the mandatory introduction of eCall (automated emergency calling) to all new cars<sup>18</sup> manufactured in Europe from April 2018 may require the assignment of mobile numbers to facilitate this service.
- 28. ComReg must facilitate any new numbering requirements in line with its statutory remit. Also, the proposed new European Electronic Communications Code<sup>19</sup> is currently at an advanced stage of discussion at the European level and, if enacted in anything like its current form, it would likely mandate national regulatory authorities in all Member States (including ComReg in Ireland) to grant rights of use for numbers for new forms of electronic communications services as outlined above.
- 29. While the national market for M2M communications is reasonably straightforward to monitor and forecast, it is more difficult to predict the numbering demands from M2M providers serving the international market e.g. those that will use Irish mobile numbers and SIMs on an extra-territorial basis.
- 30. ComReg engaged InterConnect Communications ('ICC') in late 2016 to assess the mobile numbering requirements of existing and new services and to identify regulatory measures to meet forecasted demand for new services without imposing costly and disruptive mobile number changes on existing Irish mobile users. ComReg will shortly publish ICC's report as part of a public consultation on proposals for addressing the mobile numbering requirements of new services (see also section 4.3).

<sup>&</sup>lt;sup>17</sup> M2M and Internet of Things (IoT): Opportunities for Telecoms Providers Volume 2, October 2016 - Analysys Mason white paper

<sup>&</sup>lt;sup>18</sup> According to the European Automobile Manufacturers Association (ACEA) 19.2 million motor vehicles were manufactured in the EU in 2016 and there are some 291 million vehicles on Europe's roads.

<sup>&</sup>lt;sup>19</sup> In September 2016, the EC published a Proposed Directive establishing the European Electronic Communications Code. See <a href="https://ec.europa.eu/digital-single-market/en/news/proposed-directive-establishing-european-electronic-communications-code">https://ec.europa.eu/digital-single-market/en/news/proposed-directive-establishing-european-electronic-communications-code</a>.

31. Going forward, the numbering unit will continue to monitor mobile number assignments and the implementation of mobile number conservation measures in Ireland, so as to ensure sufficient availability of mobile numbers for the future.

#### 3.3 Non-Geographic Numbers (NGNs)

- 32.NGNs are telephone numbers used by organisations and businesses to provide services such as public services and helplines to consumers. Unlike geographic numbers, NGNs do not relate to a particular geographic area. In Ireland, NGNs include 1800 (Freephone), 1850 and 1890 (shared cost), 076 (nomadic), 0818 (universal access) and 15XX (premium rate) numbers.
- 33.NGNs provide a useful platform for the delivery of a wide variety of services but ComReg has concerns about the retail tariffs for some NGNs and the level of transparency of NGN costs for consumers. For these reasons, ComReg recently undertook an extensive review of the 1800, 1850, 1890, 0818 and 076 NGNs<sup>20</sup> with the assistance of external consultants, DotEcon and Behaviour & Attitudes (B&A). The review involved market and economic research, data gathering, and modelling of the NGN platform, including:
  - Surveys to gauge levels of NGN awareness, understanding and use among consumers and organisations;
  - A survey on the potential cost to businesses of migrating to a new customer contact number, and
  - An economic report covering the types of services typically provided, NGN demands, trends and NGN retail tariffs. This report also identified a number of problems with NGNs that are currently harming consumers and recommended measures to address the problems.
- 34. In August 2017, ComReg published a consultation<sup>21</sup> setting out its preliminary view on the functioning of NGNs and proposing a number of regulatory measures to ensure the NGN platform functions more efficiently to better meet the reasonable needs of consumers (see also section 4.2).

14

<sup>&</sup>lt;sup>20</sup> 15XX (premium rate) numbers and directory enquiry services were not included in our NGN review as these are special cases in which where the service provider receives funding for the service offered, in contrast to the situation for 18XX, 0818 and 076 NGN calls in which the caller and/or service provider pays towards some or all of the cost of the call.

<sup>&</sup>lt;sup>21</sup> See www.comreg.ie/ngnreview

#### 3.4 Short codes

- 35. The numbering unit assigns short codes (3-6 digits) for a range of services including directory enquiries, customer support, premium rate services, and for on-network use (e.g. 171 for mobile voicemail access). It also manages the assignment of internal network routing codes and network identifiers to Irish operators to ensure network interoperability on a national and global level.
- 36. An important milestone of late was the implementation of a number of short codes for EU harmonised services of social value. These include a hotline for missing children (116000), a helpline for victims of crime (116006), a child helpline (116111) and an emotional support helpline (116123). These four short-codes are free to call and are now implemented and fully functioning in Ireland.

## 4 Numbering Work Streams

37. This chapter describes the numbering unit's current work streams which relate to the core numbering elements of administering the Scheme, managing its design, setting conditions for numbers and ensuring their efficient use.

#### 4.1 Numbering Conditions

- 38. The Numbering Conditions which was first published in 2015, replaced the Numbering Conventions.<sup>22</sup> The Numbering Conditions inform interested parties of (i) the key statutory provisions which apply to rights of use for numbers, (ii) the general and specific conditions attaching to rights of use, (iii) the qualifying criteria for being granted rights of use and (iv) the administrative process for applying for numbers.
- 39. ComReg will shortly commence a public consultation on a review of the Numbering Conditions. The upcoming consultation will propose new and amended conditions to address certain issues that have arisen since the 2015 review and some adjustments to the administrative process.

## 4.2 Non-Geographic Number review

- 40. As referenced earlier, this review takes into account the requirement to ensure that NGNs are used in a manner which promotes competition and protects consumers. ComReg gathered and assessed a large body of relevant information prior to commencing its NGN Consultation.<sup>23</sup>
- 41. The NGN Consultation was published in August 2017 and responses to the consultation have now been received from a number of interested parties. ComReg is now analysing the responses and intends to publish a Response to Consultation in Q1 2018.

## 4.3 Mobile Numbering Review

42. In 2016, ComReg commenced a Mobile Numbering Review in which it sought to understand and to estimate the potential increased demand for mobile numbers that is likely to result from new technologies and services such as OTT, M2M and

<sup>&</sup>lt;sup>22</sup> The current Numbering Conditions of Use and Application Process document is ComReg 15/136

<sup>&</sup>lt;sup>23</sup> NGN review documentation is available at <a href="www.comreg.ie/ngnreview">www.comreg.ie/ngnreview</a>

- IoT. ComReg must ensure that there are enough number to meet any increase in demand, while also continuing to promote competition and the interests of users of electronic communications services.
- 43. As part of its Mobile Numbering review, ComReg engaged ICC to forecast future demand for mobile numbers and to identify regulatory measures to address such demand.
- 44. The review is timely given that, in September 2016, the EC published its draft European Electronic Communications Code which includes a proposal to require Member States to identify a number range to address demand for numbers from new services such as M2M.
- 45. ComReg will, in due course, publish the ICC report, along with a consultation document including proposals that aim to address the potential demand for mobile numbering resources from new services.

## **5 Numbering Statistics**

#### **5.1 Geographic Numbers**

- 46. Figure 5 shows the total assigned geographic numbers from 2012 to 2016. In 2015 ComReg recovered a large number of unused geographic numbers (over 1 million, mainly in the Dublin '01' area code) as part of its conservation work. More unused geographic numbers were recovered in 2016 as part of ComReg's audit of eight geographic area codes at risk of number exhaustion.
- 47. The positive effect of these number recoveries, in terms of reducing the assignment of new geographic numbers, is clear from the graph below. This emphasises the importance of continuing to conserve Ireland's geographic numbers.

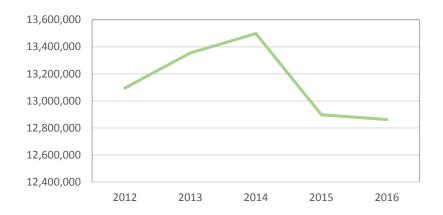


Figure 5: Total assigned geographic numbers 2012 – 2016

#### 5.2 Mobile Numbers

- 48. Figure 6 shows the mobile number assignments from 2012 to 2016. While the total amount of mobile numbers that are assigned in a given year has fallen significantly since 2012, the overall total amount of mobile numbers that are assigned continues to grow as more devices requiring mobile numbers come to market (see Figure 7). This suggests that the requirement for mobile numbers for individual end users may have peaked and that emerging demand for mobile numbers is likely to come from other services e.g. M2M.
- 49. ComReg is required to ensure that there is a sufficient supply of mobile numbers to meet current and future demands for numbers. This further highlights the significance of number conservation work and ensuring that mobile numbers are used efficiently.

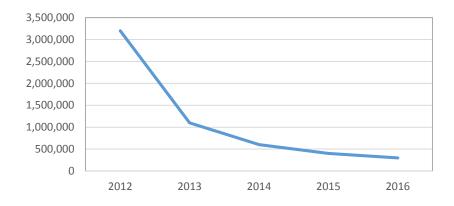


Figure 6: Mobile number assignments 2012 - 2016

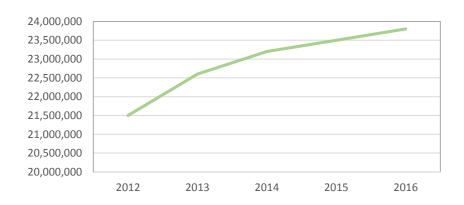


Figure 7: Total assigned mobile numbers 2012 - 2016

## **6 Looking Forward**

- 50. Numbers are a key enabler for competition and investment in electronic communications and are of vital importance to consumers. The growth of M2M, IoT and OTT services is likely to have a significant impact on numbering resources and numbers need to be available to facilitate the roll-out such services. Informing and protecting consumers who use numbers on a daily basis is also crucial.
- 51. As part of its strategic planning process, ComReg analysed the broad market trends and has committed to certain actions in relation to numbers in its Strategy Statement 2017-2019.<sup>24</sup> ComReg must balance the need to cater for new competition and innovation whilst also ensuring that consumers remain protected. ComReg's strategic goals in relation to numbering are as follows:

**Goal 6:** Numbering management facilitates competition.

**Goal 10:** Consumers rights throughout their journey are upheld by their service providers.

- 52. ComReg has used its 'Strategic Intent' framework<sup>25</sup> and a further analysis of how market trends might affect numbers to highlight areas for further consideration over the next five years. These include looking at the numbering needs for Next Generation services, addressing Calling Line Identification issues, continued monitoring of directory enquiry codes, Premium Rate Numbers, messaging and payment short codes, and ongoing monitoring of operator compliance with the Numbering Conditions.
- 53. ComReg's current and imminent numbering projects, including its separate public consultations on NGNs, Mobile Numbering, and Numbering Conditions, aim to ensure that the national numbering resource continues to be managed effectively and used efficiently, to the benefit of industry and ultimately to the benefit of users of electronic communications services.
- 54. ComReg will also publicly consult on any new issues or challenges affecting numbering and that could ultimately lead to changes to the Scheme or to the conditions of use that attach to numbers.

<sup>&</sup>lt;sup>24</sup> See ComReg 17/31: Electronic Communications Strategy Statement 2017-2019

<sup>&</sup>lt;sup>25</sup> Ibid.

## 7 Feedback

- 55. This document gives an overview of work undertaken by ComReg's numbering unit. ComReg will issue further updates on such work from time to time.
- 56. Interested parties are free to provide any comments they may have on this document. Please submit any comments to <a href="mailto:numbering@comreg.ie">numbering@comreg.ie</a>. Please also explain any comments and provide any supporting information.