



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Implementing the New NGN Platform

Outline plan and next steps

Information Notice

Reference: ComReg 19/01

Version: Final

Date: 04/01/2019

An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation

1 Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.
One Dockland Central, Guild Street, Dublin 1, Ireland, D01 E4X0.
Teil | Tel +353 1 804 9600 Suíomh | Web www.comreg.ie

Additional Information

Review of Non-Geographic Numbers Consultation Document	ComReg Document 17/70
Report from DotEcon on Non-Geographic Numbers in Ireland	ComReg Document 17/70a
Non-Geographic Numbers: Consumer Study (B&A and The Research Perspective)	ComReg Document 17/70b
Non-Geographic Numbers: Organisation Study (B&A and The Research Perspective)	ComReg Document 17/70c
Non-Geographic Numbers: Cost Study (B&A and The Research Perspective)	ComReg Document 17/70d
Response to Consultation 17/70	ComReg Document 18/65
DotEcon Response to Consultation 17/70	ComReg Document 18/65a
Submissions to Consultation 17/70	ComReg Document 18/65s
Response to Consultation 18/65 and Decision	ComReg Document 18/106
Submissions to Consultation 18/65	ComReg Document 18/106s

Legal Disclaimer

This Information Notice is not a binding legal document and also does not contain legal, commercial, financial, technical or other advice. The Commission for Communications Regulation is not bound by it, nor does it necessarily set out the Commission's final or definitive position on particular matters. To the extent that there might be any inconsistency between the contents of this document and the due exercise by it of its functions and powers, and the carrying out by it of its duties and the achievement of relevant objectives under law, such contents are without prejudice to the legal position of the Commission for Communications Regulation. Inappropriate reliance ought not therefore to be placed on the contents of this document.

Content

Section	Page
1 Introduction.....	4
2 Outline Implementation Plan	7
2.1 Implementation Vision and Principles	7
2.2 Overview of the Work Programme	8
2.3 Implementing the Geo-Linked Retail Tariff Condition.....	9
2.4 Implementing Number Range Consolidation.....	11
2.5 A Better Way to Manage Numbers.....	15
3 Interim Guidance for Serving Operators	20
3.1 Current Problems and the Benefits of Changes for SPs	20
3.2 The Impact of New Retail Pricing	21
3.3 The Impact of Number Range Consolidation	22
4 Industry NGN Working Group & Next Steps	26
4.1 Resources to Assist the Working Group	26
4.2 Objectives and Working Methodology of the NGN WG.....	27
4.3 Participation in Industry NGN Working Group.....	28

1 Introduction

1. This Information Notice provides ComReg's preliminary proposals for how ComReg and industry can co-ordinate the successful implementation of improvements to the Non-Geographic Number (NGN) platform. The main elements of those improvements are set out in detail in ComReg Document 18/106¹, and are also summarised below. This document also outlines ComReg's preliminary proposals for ensuring that these improvements are communicated effectively to all end users.
2. These proposals are intended primarily for consideration by affected operators. For organisations that currently use NGNs ('Service Providers' or 'SPs'), ComReg proposes that the serving operator would contact their own SP customers directly to provide full details of the changes and advice on what to do next.
3. It is currently proposed that the detailed content of these and other communications will be discussed and agreed with industry in early 2019. ComReg has nevertheless provided some initial guidance for serving operators, to assist with any queries from SP customers in the interim.
4. ComReg will form an industry 'NGN Working Group' (NGN WG) in early 2019 (Section 4) in order to develop and agree a detailed implementation and communications plan and to oversee its execution. ComReg staff will provide ongoing assistance to the working group and additionally ComReg will procure project management and communications expertise to aid and support implementation.
5. In advance of the first meeting of the NGN WG, we welcome views on these initial proposals. ComReg and the NGN WG will take account of views submitted in the development of the final implementation and communications plan.

The improvements to be implemented:

6. ComReg Document 18/106 contains a Decision (ComReg D15/18) for two measures to be implemented. In summary, these are:
 - **'Geo-Linking' condition:** To introduce a new 'Geo-Linked' retail tariff condition for the 1850, 1890, 0818 and 076 NGNs by 1 December 2019. Calls to these NGNs will be no more than the cost of calling a Geographic number. If calls to Geographic Numbers are included in a user's bundle of 'call minutes' then calls to these NGNs will also be in their bundle. So no

¹ [ComReg Document 18/106](#): Review of Non-Geographic Numbers. Response to Consultation 18/65 and Decision. All documentation related to ComReg's NGN review and a short animation are at www.comreg.ie/ngnreview

separate charge will apply (unless they have exceeded their call minutes); and

- **Consolidation:** To reduce the number of NGN ranges from five (1800, 1850, 1890, 0818 and 076) to two (1800 and 0818) by 31 December 2021.

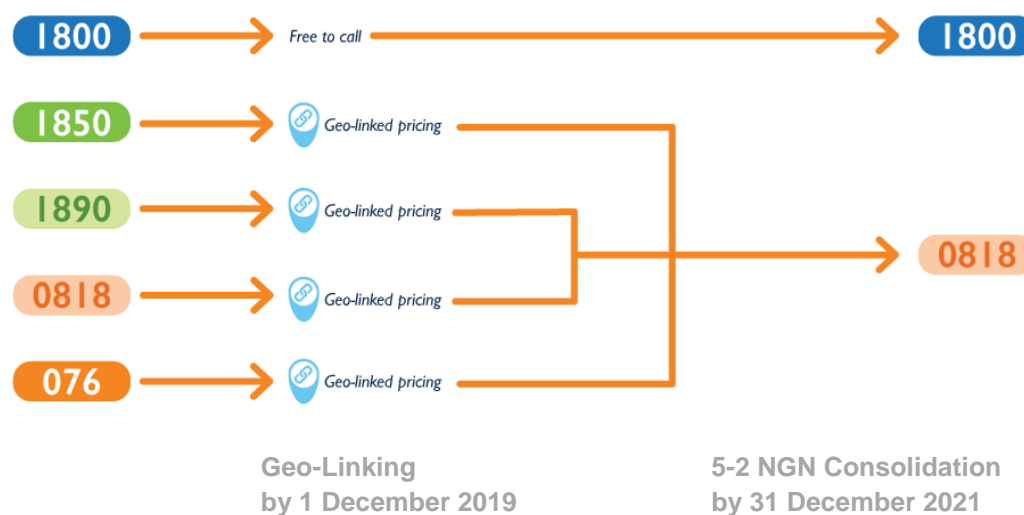


Figure 1: The Two Measures in D15/18

7. These measures are intended to simplify the NGN platform for consumers and for SPs, and to address the consumer harm identified in ComReg's review.

- **Transparency and communications:** ComReg and operators need to communicate these improvements effectively to consumers. ComReg Document 18/106 sets out certain transparency measures that can be adopted in support of same. In addition, the industry working group, guided by communications experts, will develop a detailed communications plan for both ComReg and operators. The plan needs to take account of the two-step nature of the measures i.e. Geo-Linking by 1 December 2019 and NGN Consolidation by 31 December 2021. ComReg will make a budgetary provision for its own communications during and beyond the implementation period.
- **Wholesale charges:** ComReg will publish a further consultation on NGN wholesale charges in Q1 2019. ComReg considers that these charges may be affecting organisations' use of NGNs for providing services to consumers. This is of particular concern for 1800 Freephone, where ComReg's research has shown that some organisations consider the costs to be prohibitive.² Any decision on wholesale changes would also come into

² Slide 32 of [ComReg 17/70c: Non-Geographic Numbers: Organisation Study](#)

effect on 1 December 2019 – i.e. concurrent implementation with the Geo-linking Condition.

- **Individual number assignment:** Finally, ComReg document 18/106 highlighted that a better way of managing NGNs is needed. ComReg is developing a new system to assign NGNs on an individual basis. This in turn should simplify the process for SPs moving to new numbers. Section 2.5 outlines our initial proposals and highlights the need for dialogue with industry technical experts on those proposals.
8. In moving to the implementation phase, ComReg is conscious that there was not uniform support for these measures. As an industry, we now need to progress matters and ensure that the measures are properly implemented and also importantly, they are effectively communicated. With industry support, ComReg is confident that the NGN platform will thrive, and everybody concerned – consumers, SPs and operators – will benefit.
9. The remainder of this document is structured as follows:

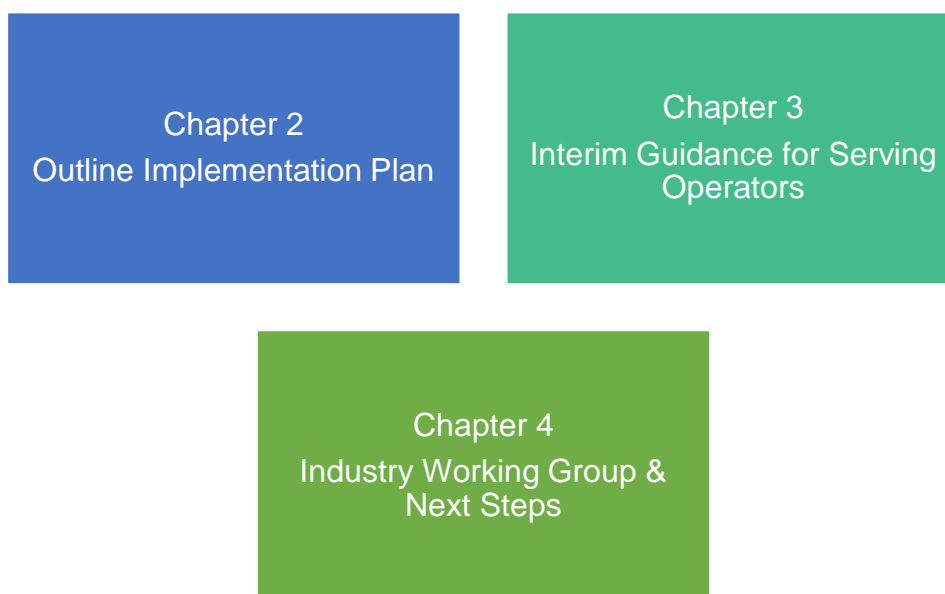


Figure 1: Document structure

2 Outline Implementation Plan

2.1 Implementation Vision and Principles

10. ComReg believes that the industry working group should develop an overall vision for what constitutes a success outcome, and be guided by this throughout the project. We will develop this vision statement with industry at the first meeting of the NGN Working Group.
11. High level implementation principles are also useful to frame the work. ComReg offers the following principles for consideration:

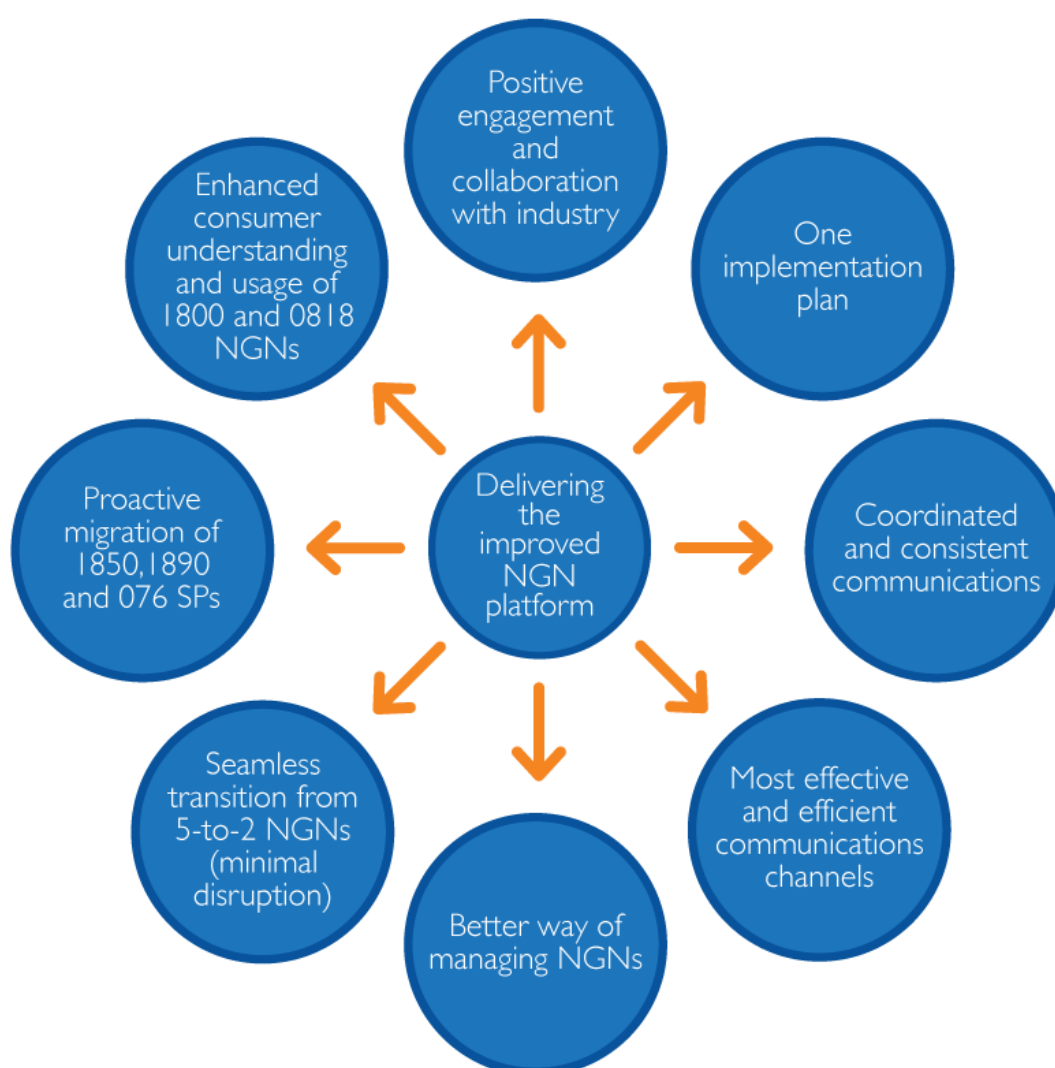


Figure 2: Guiding Principles for effective delivery of the improved NGN platform

2.2 Overview of the Work Programme

12. Figure 3 shows the draft Work Breakdown Structure which signposts the proposals in the balance of this document:



Figure 3 – Draft Work Breakdown Structure

2.3 Implementing the Geo-Linked Retail Tariff Condition

13. Figure 4 below shows the proposed main stages involved in the implementation of the Geo-Linked retail tariff condition for 1850, 1890, 0818 and 076 NGNs. These are discussed in more detail below.

Stage	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Discuss and agree detailed tasks and communications requirements					
ComReg publishes detailed communications and implementation plan (Information Notice)					
Operators prepare for implementation of Geo-Linked retail tariffs					
Information campaigns and website updates					

Figure 4: Indicative stages in implementation of Geo-Linking

Discuss and agree detailed tasks and communications requirements

14. The Geo-Linked retail tariff condition must be implemented by all originating operators by 1 December 2019. From that date onwards, a call to any 1850, 1890, 0818 or 076 NGN must cost no more than the cost of calling a Geographic Number (GN) (noting this is a tariff ceiling, so operators are of course free to charge less). If calls to GNs are included in a customer's "bundle of call minutes" then NGN calls will also be "in bundle". No separate charge will apply for any NGN call (unless a customer has used up his/her bundle of call minutes).
15. ComReg has given 12 months for the implementation of Geo-Linking in order to allow operators sufficient time to update their billing and back-end systems and to inform their customers, including SPs.
16. In order to ensure a successful and smooth implementation, ComReg and industry will need to work together to identify the detailed tasks, deliverables and timelines to be met in 2019.
17. The industry NGN WG will convene in early 2019 to commence discussions on the implementation of Geo-Linking and NGN Consolidation.
18. Based on any views on this Information Notice and discussions with individual operators in the interim, ComReg will present a more detailed set of proposed tasks, deliverables and timelines to the NGN WG at the first meeting.

ComReg publishes detailed communications and implementation plan

19. The NGN WG will need to discuss and agree an implementation and communications plan for Geo-Linking. An element of the plan is to provide detailed guidance for all operators on how to inform all end users about Geo-Linking in a simple and compelling way.
20. Based on this overall plan, operators will need to develop their own internal plans to make systems changes and to prepare their own branded communications to their customers.
21. The key technical implementation tasks for all operators for Geo-Linking will likely include operator billing changes and back-end system changes. The key communications tasks will include what, when and how to communicate the Geo-Linked retail tariff measure to consumers and SPs.
22. It is in the interests of all parties in the NGN chain (consumers, SPs and operators) that clear, easily understandable information on NGN tariffs is readily available. Consumers are entitled to know the retail charge for calling NGNs, including how NGNs are treated under bundles. Originating operators will therefore need to directly inform their customers of the new Geo-Linked retail tariff condition.
23. Informed consumers are more likely to engage positively with the NGN platform. This will benefit SPs using NGNs and operators.
24. ComReg, in cooperation with industry, will develop guidance for SPs on how to communicate the new NGN retail tariffs to their customers, such as simplified and clear NGN brand / pricing messages (e.g. 'Freephone' for 1800).³
25. Once agreed, ComReg will publish the communications and implementation plan as part of an Information Notice, which will include how the Geo-Linking retail tariff condition is to be implemented and communicated. This is particularly for the benefit of operators who may not participate in the industry NGN WG.

Operators prepare for implementation of Geo-Linked retail tariffs

26. To prepare for Geo-Linking, operators will need to:
 - Update billing systems to account for the changes to the NGN retail tariffs for 1850, 1890, 0818 and 076 NGNs.

³ The pricing message for Geo Linked tariffs needs to be short, yet clear e.g. along the lines of 'Calls cost no more than a landline call and count towards any inclusive minutes'.

- Update retail tariff lists to detail the costs of calling 1850, 1890, 0818 and 076 NGNs from 1 December 2019.
 - Directly inform their customers of the costs of calling 1850, 1890, 0818 and 076 NGNs and how NGNs will be treated going forward under the various subscriptions that they offer. An information campaign would likely be appropriate here, using the most effective channels to customers that are available to each operator.
 - Inform SP customers of the retail costs of calling 1850, 1890, 0818 and 076 NGNs and how to convey this to their own customers from 1 December 2019.
27. All of the above tasks will need to be completed in time for the implementation date of 1 December 2019.

Information campaigns and website updates

28. In Q4 2019, ComReg will run an information campaign to announce the coming into force of the Geo-Linked retail tariff condition and indicating where retail tariff information may be found.
29. ComReg will also develop its website to include retail tariff information on 1850, 1890, 0818 and 076 NGNs and links to operators' retail tariffs lists. This should enable consumers to know or to reasonably estimate the retail tariff for NGN calls in advance. Consumers will also be reminded that 1800 is free to call.
30. ComReg will provide regular updates on NGNs and NGN retail tariffs via social media and any other appropriate channels. Operators will also need to inform customers and update websites.
31. In meeting both of these goals (website update and information campaign), ComReg will require industry cooperation in terms of collating the necessary data.

2.4 Implementing Number Range Consolidation

32. The Consolidation measure aims to remove confusion about the different NGNs and simplify the NGN platform going forward. A simpler, more consumer-friendly platform will increase consumer engagement, bringing benefits to Service Providers too. Figure 5 below shows the indicative stages currently foreseen in the implementation of NGN Consolidation.

Stage	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022
Discuss and agree tasks and communications for NGN Consolidation														
ComReg publishes implementation and communications plan (Information Notice)														
Ongoing NGN WG meetings to ensure successful implementation														
Information campaign to communicate the NGN Consolidation measure and the need for some SPs to change numbers														
Migration of 1850, 1890 and 076 users to alternative numbers and implementation of transition measures														
Cessation of use of 1850, 1890 and 076 NGNs														
Recorded announcements for 1850, 1890 and 076 NGNs														

Figure 5: Indicative stages in the implementation of 5-to-2 NGN Consolidation

Discuss and agree tasks and communications for NGN Consolidation

33. ComReg ceased assigning 1850, 1890 and 076 NGNs on 1 December 2018. 1850, 1890 and 076 NGNs should also no longer be assigned by operators from any existing block assignments in those ranges.
34. From 1 January 2022, the five NGN ranges (1800, 1850, 1890, 0818 and 076) will be reduced to two (1800 and 0818). The 1850, 1890, 076 ranges are being withdrawn over a three year transition period from 1 December 2018. A sub-range of 076 will be kept open for TETRA use.
35. Operators will be expected to engage with ComReg and SPs throughout the transition period in order to ensure a successful transition to the new NGN platform (1800 and 0818 only).
36. In preparation for implementation, ComReg will shortly undertake a detailed audit of the 1800, 1850, 1890, 0818 and 076 NGNs to establish the exact quantity of NGNs in active use and to identify the precise number of SPs and end-users that will need to migrate from 1850, 1890 and 076 NGNs (Section 2.5).

37. As part of the audit process, ComReg will recover all 1800 and 0818 NGNs that are not in use, but are currently assigned to operators. These numbers will then be made available for assignment under a new individual number assignment (INA) system (Section 2.5).
38. The INA system will allow for the individual assignment of 1800 and 0818 NGNs, subject to valid SP requests. More than 95% of 1800 and 0818 numbers are unused, so the INA system will give SPs a wide selection of 1800 and 0818 NGNs, via any operator of their choosing.
39. The INA system should be in place by Q2 2019 and will allow operators to access 1800 and 0818 NGNs for assignment. Interim manual arrangements are also being planned.
40. Some organisations (and particularly those using 076) may choose to move to Geographic Numbers. This would be handled as 'business as usual' by operators and ComReg.
41. ComReg will engage with industry in early 2019 to discuss and agree the tasks and communications requirements for implementing NGN Consolidation, including the development of appropriate business processes for use of the INA system (e.g. new procedures and possible changes to operators' internal number management processes) and how parallel running of old and new numbers will work.

ComReg publishes implementation and communications plan

42. In early 2019 ComReg, in collaboration with industry, will develop a detailed plan in order to explain how NGN Consolidation is to be implemented and communicated. This plan will be published by ComReg as part of an Information Notice in Q2 2019.

Ongoing NGN WG meetings to ensure successful implementation

43. To ensure the successful implementation of NGN Consolidation, ComReg considers that ongoing cooperation and collaboration with industry will be needed. Therefore ComReg proposes regular (e.g. fortnightly) meetings of the industry Working Group, as least for the initial 6-12 months. The frequency can be revisited as the project advances.

Information campaign to communicate the NGN Consolidation measure and the need for some SPs to change numbers

44. SPs will need to be fully informed about NGN Consolidation in terms of the timelines and tasks to be completed. ComReg and operators will need to ensure this is done in a clear, consistent and appropriate manner. The manner and means of such communications will need to be discussed and agreed by ComReg and industry in advance, at the NGN WG.
45. ComReg foresees a need for general communications to assist migrating SPs and is prepared to issue this. ComReg will also discuss with operators requirements for specific communications to their customers (end-users and SPs).
46. From Q3 2019, ComReg proposes to run an information campaign on the need for SPs using 1850, 1890 and 076 NGNs to migrate to alternative numbers. This campaign will detail how SPs can get further information on the options available to them and the steps they need to follow to ensure successful migration.

Migration of 1850, 1890 and 076 users to alternative numbers and implementation of transition measures

47. Once the INA system and other preparations are in place, ComReg and industry should be well-placed to deal with a potentially high level of requests for new NGNs.
48. As mentioned above, both ComReg and the industry could run an ongoing broad communications campaign aimed mainly at SPs, highlighting the need for a number change, advantages of an early move, etc. This campaign would coincide with individual operator-led direct marketing campaigns to affected SPs. Most SPs would have an Account Manager who should be the primary contact point for the SP.
49. During the transition period, when SPs are migrating, it will be crucial that customer/client contact is not lost. Parallel running of old and new numbers will therefore be required. After the parallel running period, a generic announcement may be set up to indicate that the NGN is not in service, or a specific announcement could indicate the specific alternative number to call (many Intelligent Network (IN) platforms support this capability). Following a period of announcements (typically 6 months), callers dialling a withdrawn NGN could hear a 'Number Unobtainable' (NU) tone. The options and possibilities will need to be discussed and agreed with the NGN WG.

50. Additionally, ComReg may need to identify SPs providing access to critical infrastructure (e.g. certain utility companies) so as to try to accommodate any specific needs as may be practical. ComReg will provide guidance and assistance on a case-by-case basis, following discussion with the NGN WG.

Cessation of use of 1850, 1890 and 076 NGNs

51. Through 2020 and 2021, ComReg and operators will work to ensure that SPs and end-users migrate from the 1850, 1890 and 076 NGNs. ComReg and industry could opt to run a national press and online campaign close to the date for withdrawal of these ranges, advising SPs of their last chance to change, and to contact their serving operator.
52. From 1 January 2022, all 1850, 1890 and 076 NGNs will cease to be in use (with the exception of 076 used by emergency services, and any exceptional circumstances as ComReg may determine). ComReg and industry will need to agree on appropriate measures to put in place in advance of and going beyond that date. At this stage generic and specific recorded announcements would appear suitable for most cases.

Recorded announcements for 1850, 1890 and 076 NGNs

53. Recorded announcements may be set up for certain 1850, 1890 and 076 NGNs used for inbound calling, so that if a customer calls one of those NGNs after it has been withdrawn they will hear a message that the NGN is no longer in use and possibly giving a new number to call.
54. As the transit provider of choice, Eir's IN platform capabilities are potentially key, especially for smaller operators. The feasibility and appropriateness of options to be used after 1 January 2022 will need to be discussed and agreed by ComReg, the NGN WG and interested parties.

2.5 A Better Way to Manage Numbers

The Business Need

55. To facilitate the migration by SPs to new NGNs, ComReg will develop an individual number assignment (INA) system to allow for the individual assignment of 1800 and 0818 NGNs.

56. ComReg is making preparations for such a system to support the timely migration of existing NGNs in the three ranges being withdrawn to alternative numbers, including in the remaining two NGN ranges (1800 and 0818).
57. The assignment of individual NGNs will replace current block assignment. This is a significant change in the process of assigning NGNs which needs to be supported by changes in operators' network provisioning processes and support systems.
58. The INA will introduce automatic features to speed up the assignment of NGNs. It is envisaged that after an initial account signup process (via ComReg's eLicensing) operators will have online access to the system. Account holders could then apply for assignments of individual numbers which would be automatically approved. These process changes will support operators and SPs in a faster turn-around from number application to these numbers going live on operator networks.
59. SPs that currently use a NGN in one of the three ranges being withdrawn (1850, 1890 and 076) should be encouraged to migrate to alternative numbers as soon as possible, and especially as soon as the INA system has been deployed. This will allow SPs to have their existing and new numbers run in parallel for as long as possible (potentially up to 3 years). ComReg plans to discuss these issues with operators at the NGN WG.
60. The INA system is planned to be delivered by the end of Q2 2019.

The 'Pain Points' Being Addressed

61. The present number block assignment process constrains the choice of numbers available to operators and SPs. While only a small proportion of these numbers (less than 5%) are in use, there is no visibility of individual number availability (with the exception of the current number block holder). All unused 1800 and 0818 NGNs will need to be returned to ComReg and their availability made visible to all operators and SPs.
62. The current manual NGN assignment process is resource dependent, time consuming, and prone to human error. It will not, for example, properly serve the needs of the potentially large number of NGN migrations over the next three years. A new INA should enable an efficient and up-to-date process for NGN assignment.

The Starting Point is an Audit of NGN Use

63. In order to bring all unused 1800 and 0818 NGNs into play, the status of individual numbers needs to be recorded on the INA system.
64. To achieve this ComReg will audit operators' usage of individual 1800 and 0818 numbers in blocks already assigned (more than 95% of NGNs in these ranges are unused). When populated with such data, the INA system will also, for example, enable SPs to identify NGNs in the 1800 and 0818 ranges that are equivalent to their operator's current assignment in the ranges to be withdrawn. The audit will also capture information on the NGNs to be withdrawn (1850, 1890 and 076) to give ComReg an accurate and complete picture of all current NGN assignments and to identify where migration will be required.
65. ComReg recognises that the audit of NGN data is a manual process and introduces a risk of human error. For example, incorrectly recording a number as free, when it is actually in-service, has the potential to impact the relevant SP, should that number be reassigned. In this regard, ComReg understands that most, if not all, NGN traffic transits the Open Eir network. Open Eir therefore potentially has an important role to play on behalf of its wholesale customers, by assisting industry in verifying the audit data against Eir's Intelligent Network/NGN database. By verifying such data, the possibility of errors affecting SPs and their clients would be minimised.
66. ComReg intends to recover all unused 1800 and 0818 NGNs as part of the audit so as to make them available for assignment on an individual basis via the INA system. The audit will commence in January 2019 and completion is anticipated in Q1 2019.

Development of the INA System

67. ComReg has carried out preliminary work in planning the INA system and considers it optimal to build onto the existing ComReg eLicensing platform. This is because it provides all of the features required to meet the business need and is also immediately available for development.
68. ComReg is responsible for the cost of development and ongoing management of the INA system.
69. Figure 6 below outlines the indicative tasks in the development of the INA system.

Planned Action / Indicative Timelines	Q1 2019	Q2 2019
Industry Workshops		
Audit of NGN Data, recovery of unused 1800 and 0818 NGNs and population of the INA database		
Discuss and agree new business processes for 1800 and 0818 NGN assignments		
Specify INA system requirements		
Develop INA System		
User Acceptance Testing		
INA system commissioning		
INA system go-live		

Figure 6: Indicative Tasks for INA system development

70. The proposed INA system is envisaged to be in operation by the end of June 2019. In advance of this date, and on receipt of a valid 1800 or 0818 NGN application from an operator, ComReg plans to manually assign individual NGNs that are identified as available on the current numbering database. Discussion is needed with the NGN WG as to how operators could provision new individual assignments on networks on an interim basis.
71. The audit will ensure that all unused individual 1800 and 0818 NGNs in assigned blocks are identified. Once this audit is complete, the porting of unused 1800 and 0818 NGNs within assigned blocks should also be made possible. ComReg will coordinate with the industry Fixed Number Portability (FNP) Committee and the NGN WG on these issues.
72. ComReg also envisages that SPs could have read-only access to the INA system so as to be able to search for available numbers.

Integration with Existing Porting Solution

73. ComReg will explore potential integration of the INA with the existing FNP system. Such integration would:
- Improve the accuracy of ComReg's INA database
 - Ensure individual number assignments for 1800 and 0818 NGNs are active on the FNP system (provided by Porting XS) to allow for portability following assignment
 - Allow for the leveraging of the existing links to operators' INs from Porting XS for new individual number assignments.

74. ComReg will engage with industry on the work necessary to provide interworking between these two systems.

3 Interim Guidance for Serving Operators

75. ComReg wishes to promote the use of the new NGN platform to the betterment of SPs and their customers. By fully engaging with the planning and communications process, serving operators should be best positioned to proactively assist SPs migrate to new NGNs and to communicate Geo-Linked pricing to their customers. This will be in SPs' and operators' best interests.
76. This will also be an opportunity for serving operators to be responsive to their business customers' needs. Given that the market is competitive, with over 40 operators providing NGN services, SPs may simply choose another operator if their serving operator is not responsive.
77. ComReg proposes that serving operators should contact each SP customer directly in early 2019 to ensure that they are fully informed in a timely way about the impact of changes and the options going forward. The NGN WG will develop guidance to be used in these initial communications with SPs.
78. In the interim, this section provides some initial guidance that may be useful - e.g. for operator Account Managers in addressing general queries from their SP business customers in advance of industry-agreed detailed guidance.
79. This section summarises current issues with the NGN platform and the likely benefits for SPs from improving the platform. It then considers the impact of the Geo-linking measure for SPs. Finally, it considers the impact of the consolidation measure for SPs currently using an 1850, 1890 or 076 NGN and highlights what options exist.

3.1 Current Problems and the Benefits of Changes for SPs

80. NGNs are used by many Irish organisations to deliver a range of voice-based consumer services such as helplines. ComReg gathered evidence which shows that NGNs serve a valued purpose for which there is demand. However the evidence also shows that the NGN platform as currently structured is causing significant harm to many Irish consumers.

81. The main problem is that the majority of consumers cannot tell the different NGNs apart and do not know, or cannot estimate, the retail charges for calling different NGNs. Some consumers have also experienced “bill-shock” from calling an NGN.⁴ This happens because retail tariffs for some NGN calls can be high, particularly when made from a mobile phone. In addition, most NGN calls are not included in the typical monthly “bundle of call minutes”, which has become the main subscription package offered by Irish telecom operators.
82. Because many consumers know that some NGN calls are expensive, they often decide not to call any of them or else call them reluctantly – i.e. when given no other option. Over time, this consumer distrust has suppressed the volume of NGN calls. Consequently, Irish organisations have less incentive to provide NGN-based call lines for their customers which also means that fewer NGN calls are made. It should be noted that some major Irish organisations (e.g. Revenue⁵) have already started to move away from using NGNs because of the customer complaints they have received over the cost of NGN calls.
83. This downward spiral of cause and effect, if left unchecked, is likely to lead eventually to a point where NGNs are no longer viable. The overarching purpose of the Geo-Linking and NGN Consolidation measures is to break that spiral and to restore consumer trust and confidence in NGNs.
84. ComReg therefore hopes to significantly improve the functioning of the NGN platform both for the benefit of Irish consumers who access services over NGNs and also for the wide array of Irish businesses, charities, and public bodies that provide those services.
85. In relation to the cost of receiving calls to NGNs, ComReg will publish a further consultation on NGN wholesale charges in Q1 2019.
86. Any decision on wholesale changes would also come into effect on 1 December 2019 – i.e. concurrent with the Geo-linking Condition. This should make the use of 1800 Freephone numbers a more attractive proposition for organisations.

3.2 The Impact of New Retail Pricing

87. Section 2.3 provides an outline plan for operators to implement the necessary systems changes and for ComReg and operators to communicate this change to consumers, around the time that the new pricing is introduced.

⁴ Slide 63 of [ComReg 17/70b: Non-Geographic Numbers - Consumer Study](#)

⁵ Revenue Press Release, 26/9/2018: ‘Revenue replaces 1890 LoCall system to reduce costs for customers’

88. ComReg will work with the industry NGN WG to agree an appropriate branding and price message to allow SPs to convey Geo-Linked pricing to their customers/clients in a way that is short and easy to understand. This information will be conveyed to SPs when their serving network operator contacts them, as described earlier.
89. It is in SPs' best interests to convey the message about improved call charges to their customers/clients and ComReg expects this will be proactively done by SPs, on an entirely voluntary basis. This reinforces the pricing message to consumers at the point of use, which is a very effective way of educating consumers about the pricing.
90. It is proposed that the current 'Freephone' brand is retained for 1800 numbers. Again it is in SPs' best interests to inform potential callers on their advertising and promotional material that 1800 calls are free. ComReg encourages this, as our research shows that many consumers currently do not know that 1800 numbers are free to call.⁶

3.3 The Impact of Number Range Consolidation

91. In implementing the reduction of NGN ranges from 5 to 2, ComReg and industry will seek to minimise the cost and disruption for SPs and individuals. To this end, ComReg has taken account of SPs' consultation responses and our research findings about replacement cycles for advertising and promotional material, and is therefore retaining the 1850, 1890 and 076 ranges for 3 years, until 31 December 2021.
92. However, ComReg hopes that affected SPs will act early and choose a new 0818 or 1800 NGN to meet their needs. More than 95% of 1800 and 0818 NGNs will be available, including some equivalent and golden numbers. Operators will be able to run old and new numbers in parallel. Operators will also be able to offer SPs a choice of other numbers.

SPs currently using 1850, 1890 and 076 for Inbound Calling

93. In the short term, the introduction of Geo-linked pricing from 1 December 2019 will at least ensure that the cost of calling 1850, 1890 and 076 will be reasonable. However these numbers will be phased out over 3 years, in line with the long term plan to simplify the NGN platform. ComReg therefore suggests that SPs that wish to continue using NGNs for inbound calling should consider which of Geo-Linked 0818 or Freephone 1800 will best meet their needs.

⁶ Slides 39 and 41 of [ComReg 17/70b: Non-Geographic Numbers - Consumer Study](#)

94. The choice will of course be influenced by the cost to the SP. ComReg notes from its research that the prohibitive cost of receiving 1800 calls (up 34 cent/min) has prevented some organisations from considering Freephone in the past.⁷ This is likely to change in the future. ComReg's work on wholesale charges for calls to NGNs is ongoing. We plan to issue a Consultation and draft Decision on these charges in Q1 '19, with the aim to bring these charges more in line with operators' actual costs.
95. A new cost-oriented wholesale pricing regime should translate into lower charges for receiving 1800 calls. In addition, the 0818 number range is a 'Calling Party Pays' model, as distinct from a 'Shared Cost' model (like 1850 or 1890). Both factors will mean that any revised operator pricing to SPs for 1800 and 0818 services should be more reasonable in future.
96. As mentioned, SPs should be contacted by their serving operator in early 2019 to ensure they are fully informed in a timely way about the impact of changes for the organisation and to be provided with full details of any next steps that the SP needs to take.
97. The serving operator will provide details of any revised pricing for receiving NGN calls, and details of how to apply for new 0818 or 1800 numbers, if the SP wishes to do so. In that regard, a new industry process will allow all operators to offer SPs a wide choice of all available 0818 or 1800 numbers, noting that approximately 95% of numbers in those ranges are available.
98. As we approach 1 December 2019, SPs will also be encouraged to standardise the pricing message to their clients for calls to 1850, 1890 and 076 in any advertising, on websites, etc. This standardised message will also be communicated by the industry to SPs in advance of the price change.
99. We believe it is in the best interests of SPs to display the pricing message as it should give confidence to their customers. ComReg will also coordinate an information campaign to highlight the changes and their benefits, both for consumers and for SPs.

Organisations currently using 1800 and 0818 Numbers

100. The tariff model for the 0818 number range is currently 'Calling Party Pays' (i.e. no charge to SPs for receiving calls) and this will not change. In addition, ComReg's further work on wholesale charges should mean that any revised operator pricing for receiving 1800 calls will be more reasonable in future.

⁷ Slide 32 of [ComReg 17/70c: Non-Geographic Numbers - Organisation Study](#)

101. Calls to 1800 will continue to be free to the caller from all networks. Calls to 0818 will be Geo-Linked from 1 December 2019. SPs already using 0818 numbers will be encouraged to adopt the industry-standard pricing message for their customers/clients. This will be reinforced by a ComReg and industry communications campaign to highlight the pricing changes and their benefits. This campaign will also reinforce the message that calls to 1800 are free, since ComReg's research revealed that not everybody is aware of this.⁸

Organisations using 076 for Direct Dial Inward (DDI)

102. A small number of organisations use blocks of 076 numbers for corporate Direct Dial Inward (DDI) e.g. agencies provided with 076 numbers by Office of the Government Chief Information Officer (OGCIO). ComReg urges those organisations to fully consider our research findings, which shows that use of these numbers is negatively affecting their clients and confusing consumers in general.
103. The introduction of Geo-Linked pricing from 1 December 2019 will at least ensure that the cost of calling 076 will be reasonable.
104. For the long term, ComReg proposes that SPs using 076 numbers for DDI should revert to geographic numbers. SPs' serving operators will be in direct contact with those organisations about this in early 2019.
105. Operators and organisations should note that the 0818 range is intended for inbound calling services only, and should not be considered as a replacement for corporate DDI ranges.
106. The move to 076 for corporate DDI is recent, so some operators may have reserved the geographic number blocks that SPs previously used, and those number blocks are likely to still be open on networks.
107. If new Geographic number blocks are required, operators and organisations should note that consumers still value the location information provided by a Geographic Number, so Geographic Numbers appropriate to an SP's actual location must be used.

⁸ Slides 39 and 41 of [ComReg 17/70b: Non-Geographic Numbers - Consumer Study](#)

108. ComReg appreciates that this may result in some small loss in flexibility for some organisations (e.g. requiring a number change for a staff member being transferred from an office in Dublin (01) to an office in Cork (021)). However, when balanced against the demonstrated consumer harm of continuing to use 076 numbers, this small loss of flexibility is reasonable, and in the SP's best interests. In addition, modern IP based private corporate networks allow calls to be terminated in any location on the network, without breaking the rules of geographic number usage, so there is no loss of flexibility where calls can be received on Geographic Numbers.

Individuals using 076

109. The 076 number range was originally introduced to cater for early VoIP services, mainly because established industry players were resistant to VoIP providers using geographic numbers, which had stricter usage rules that aligned with inflexible routing and billing capabilities and practices.
110. As technology, regulation and the market developed over the years, most VoIP providers offering services to individuals (e.g. Skype) have opted for Geographic Numbers and so the take-up of 076 by VoIP providers and individuals remains low. In addition, most Over-The-Top (OTT) VoIP providers (e.g. WhatsApp, Viber) typically use their customer's existing mobile number.
111. The relatively small number of individuals with 076 numbers will be contacted by their serving operator and offered an appropriate geographic number.
112. Operators providing VoIP services to individuals should note that ComReg offers a machine-readable map of numbering areas (in Google Earth and other formats), so that numbers appropriate to a customer's address may be provided.⁹ There is no limitation on where calls to those numbers may be terminated.

TETRA and 076

113. 076 numbers are being retained for TETRA, since these are primarily being used by the emergency services and are not public facing. This means that a 076 sub-range will need to remain open on networks and billing systems. ComReg will discuss the detailed implications of this with the NGN WG and with OGCI0 in due course.

⁹ <https://www.comreg.ie/industry/licensing/numbering/area-code-maps-2/>

4 Industry NGN Working Group & Next Steps

114. ComReg's research demonstrates that organisations have a genuine need for NGN services (to reduce/eliminate the costs of calls for customers, to provide memorable or single contact numbers), so this project represents an opportunity for operators who embrace change and are prepared to engage on implementation.
115. ComReg intends to progress the implementation of improvements to the NGN platform with industry on an entirely voluntary and cooperative basis. ComReg will provide the chairmanship and coordinate the work of the NGN WG.
116. Industry co-operation ensures a speedy and effective implementation. In particular, Open Eir has a central role as the transit operator of choice for most, if not all, NGN calls. ComReg will be particularly relying on its cooperation, on behalf of both its wholesale customers and its own retail customers.
117. In turn, ComReg is prepared to provide a coordination role and will ensure that the project is adequately and appropriately resourced.

4.1 Resources to Assist the Working Group

118. ComReg will shortly procure project management and communications consultants to assist industry in co-ordinating the implementation of the improvements to the NGN platform to provide a unified message to end users.
119. The project management consultant will assist ComReg and the NGN WG to:
 - Coordinate the activities of the NGN WG;
 - Develop a detailed project implementation plan;
 - Draft and agree a new industry process and related business requirements specifications for an INA system;
 - Co-ordinate the withdrawal of the 3 NGN ranges (1850, 1890 and 076).
120. The communications consultants will assist ComReg and industry by preparing a detailed communications plan.

121. This communications plan would set out the channels to be used, key messages, timing and frequency of messaging, etc., for the duration of this proposed implementation project. The consultants will also assist in preparing industry branding for NGNs and appropriate pricing messages e.g. to explain 'Geo-Linking'.
122. The communications consultant would also assist in overseeing the implementation of the communications plan - e.g. specifying and procuring design work for web and print material, animations, booking press and online advertising, and so on.

4.2 Objectives and Working Methodology of the NGN WG

123. Implementation of the NGN Consolidation measure and communication of the Geo-Linked tariff measure and NGN Consolidation measure will need to be centrally co-ordinated. Consumers and SPs will need to hear a consistent message, no matter where they turn.
124. As with previous number changes, ComReg will assume the co-ordinator role. ComReg staff (or independent technical consultants appointed by ComReg) will chair and provide secretariat for the NGN WG.
125. The main objectives of the NGN WG would be to assist in the development of, and to agree a detailed plan, which should factor the following:
 - ***For both Geo-Linked and NGN Consolidation:***
 - A co-ordinated communications plan for ComReg and industry to follow.
 - Guidance/information material (web and print) for consumers and SPs.
 - ***For NGN Consolidation:***
 - A detailed implementation plan for the Consolidation measure;
 - Any special arrangements (e.g. customised announcements) that may be needed to address particular SP circumstances;
 - A new ComReg/industry process for the assignment and provisioning of individual NGNs;
 - A business requirements specification for a new NGN management system.

126. Subgroups of the NGN WG may be established to develop guidance and specifications in technical and operational areas. ComReg, or an independent chairperson appointed by ComReg, will also chair these subgroups. However, the work of the NGN WG and subgroups will need to be supplemented by bilateral negotiations between operators.
127. The NGN WG will not address wholesale pricing for NGNs. This will be subject to a separate public consultation process in the first half of 2019.
128. The NGN WG will operate on a cooperative and collaborative basis. As far as possible the NGN WG will work by consensus.
129. Once ComReg and the NGN WG have developed and agreed a detailed implementation and communications plan, ComReg will publish this as part of an Information Notice in Q2 2019. This would mainly be for the benefit of operators affected by the changes but who did not or do not participate in the Working Group.
130. The bulk of the work of the NGN WG should be completed by Q2 '19, but the WG may also hold occasional meetings through to Q2 2022, to monitor progress and provide feedback.
131. Whilst the NGN WG will play an important role in planning and implementing the improvements to the NGN platform, it must be remembered that meetings of the NGN WG will be attended by representatives of competing operators. All participants should therefore ensure that they are aware of their obligations under competition law and take particular care to ensure that all meetings and activities of NGN WG are conducted in compliance with all applicable competition laws.
132. ComReg will provide a draft Terms of Reference for the NGN WG, to be discussed and agreed at the first meeting.

4.3 Participation in Industry NGN Working Group

133. The NGN Working Group will meet in February 2019.
134. Participation is open to all operators affected by NGN measures, subject to a reasonable maximum number of attendees. Please register your interest in participating by email to ngnwg@comreg.ie by 25 January 2019. ComReg will provide details on venue and time of the first meeting to those who have registered.
135. In addition, ComReg intends to have at least one meeting dedicated to SPs with particular requirements and will invite SPs to join the WG for those meetings.

136. Participation in the NGN WG will at all times be subject to competition law rules.
137. In the event that parties have any comments or queries please email ComReg at karen.dunne@comreg.ie.