



TECHNOLOGY, MEDIA AND TELECOMMUNICATIONS

The approval of the new '49' ranges in the NNP for M2M services

Introduction

ANACOM held a consultation between October and November 2022 to collect additional input on the possible creation of a specific range in the national numbering plan (NNP) to accommodate the provision of transmission services used to provide machine-to-machine (M2M)¹ services. Following that consultation, on 27 December 2022 the regulator approved the draft regulation on the creation of the '49' range in the NNP for the provision of these services.

The growing importance of M2M² services for both commercial and consumer purposes has an impact on national numbering plans because devices using this technology need to be uniquely identified to allow them to communicate with each other. Therefore, a numbering strategy is needed both in the short and long term to meet the requirements of M2M services³.

Accordingly, after consulting the market, ANACOM considered it necessary to create a specific range within the NNP to offer these services⁴, even though these services may depend on the use of NNP numbers⁵. The range indicated by ANACOM may also be used for the mobile internet access service and in *eCall* systems⁶. However, it may not be used for number-based interpersonal communications services (e.g., Skype and WhatsApp).

The approval of a draft regulation and the opening up of a specific numbering range for M2M services may provide a regulatory incentive both for the widespread use of IoT applications and for the increased penetration of 5G services.

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- 1 See [Informative Note](#) prepared by PLMJ on this topic.
- 2 Communication technology through which information can be transferred in an automated form with little or no human interaction between devices and applications.
- 3 International public telecommunication numbering plan ([ITU-T Recommendation E.164](#)).
- 4 Article 5(a) Annex to the Draft Regulation
- 5 ANACOM, [Explanatory Note](#) for the Draft Regulation, p. 2.
- 6 *eCall* services are emergency calls from a vehicle (Article 3(2) and (10) of Regulation (EU) 2015/758 of the European Parliament and of the Council of 29 April 2015).

The need to create a specific range in the NNP for M2M services

M2M communications are processed automatically between machines over electronic communications networks, with little or no human intervention, and they are classed as electronic communications services⁷.

To identify connected devices, ANACOM felt it had to take into account a more demanding scenario and, as such, ensure enough numbers are available to meet future needs.

With the growth of M2M communications, boosted by the development of the fifth generation of the mobile network (5G), one of its various potentials and opportunities is its ability to support more traffic and reduce latency. This makes it possible to increase the number of connected devices in various areas, such as transport, energy, health, agriculture, public safety and assistance in the event of accidents and disasters.

As such, to identify connected devices, ANACOM felt it had to take into account a more demanding scenario and, as such, ensure enough numbers are available to meet future needs⁸.

The draft regulation put out for public consultation is intended to designate a specific range, in the E.1642 plan of the NNP, for this purpose - the '49' range. This range is 12 digits long and has a total availability of 10 billion numbers⁹, in blocks of 10,000 numbers or in multiple blocks of 10,000 upon justification of the need and if available¹⁰.

According to ANACOM, the determining factors for the creation of a specific range¹¹ were:

- It is unsustainable to use using the current ranges for mobile services (i.e., the '91', '92', '93' and '96' ranges) in the long term. The existing ranges only contain 9-digit numbers and this will not keep pace with the expected increase in demand for these services¹².
- The increased demand for numbers in the mobile numbering ranges has been caused both by (i) the availability of 5G spectrum, which has led to more mobile operators entering the market, and (ii) by the entry into force of the numbering range sub-allocation scheme (Regulation 1028/2021 of 29 December). The latter has contributed significantly to the potential exhaustion of mobile numbering ranges.
- The need to ensure the coherence and transparency of the NNP through the allocation of a specific range, in order to maintain the correlation between types of services and numbering ranges¹³.

7 Article 3(f) of Law 16/2022 of 16 August (Electronic Communications Law).

8 ANACOM, Explanatory Note for the Draft Regulation, p.2.

9 According to [ITU-T Recommendation E.164](#).

10 Article 4 of the Draft Regulation.

11 According to the information collected in 2022 under CEPT, 23 countries have a specific range for M2M. These are: Belgium, Bulgaria, Czech Republic, Croatia, Denmark, Slovakia, Slovenia, Spain, Russian Federation, Finland, France, Greece, Hungary, Ireland, Iceland, Latvia, Lithuania, Luxembourg, Malta, Norway, the Netherlands, Poland, and Sweden.

12 BEREC guidelines on common criteria for the assessment of the ability to manage numbering resources by undertakings other than providers of electronic communications networks or services and of the risk of exhaustion of numbering resources if numbers are assigned to such undertakings, 6 March 2020.

13 ANACOM, Explanatory Note for the Draft Regulation, p. 3 and 4.

- The need for a specific range of these services, given the extraterritorial nature that they may have.
- The need to ensure greater capacity and availability of companies in the provision of M2M services to different customer segments.

The adoption of the draft regulation will impact Regulation 58/2005 of 18 August (the Portability Regulation), as well as Regulation 1028/2021 of 29 December, to the strict extent necessary to accommodate the new '49' numbering range. That is, the rights to portability and sub-allocation will also be ensured in relation to this range.

The draft regulation defines the conditions for allocating the specific range '49', as well as situations of refusal¹⁴. It also defines the conditions for using the specific range¹⁵.

The draft regulation was published in the 2nd series of the official gazette Diário da República on 11 January. Interested parties¹⁶ now have 30 business days (until 22 February) to submit their contributions, in writing and in Portuguese, preferably to the address regulamento.m2m@anacom.pt.

After approval of the Regulation, companies providing these services will have a transitional period to adapt contracts and commercial proposals. This period will also allow them to put in place the necessary network and system configurations and conclude the corresponding national and international interconnection or roaming agreements. After the transitional period, companies will only be able to assign numbers from the new numbering range for the provision of M2M services.¹⁷

Final Note

The definition of a specific numbering range and of its conditions will imply a significant change in the current way of providing M2M services, by making an increase in M2M communications and the number of connected devices possible.

As a result, it is expected that the opening of a specific range for these services in the NNP will encourage the growth of M2M services and applications. It will also provide for greater dynamism and competitiveness in the offer of innovative products and services in the market. ■

14 Article 4(4) of the Annex to the Draft Regulation provides for the possibility of refusal in the following cases:
a) The use of capacity from previous allocations has not reached 60%, when the applicant company holds a quantity between 10,000 (ten thousand) and 100,000 (one hundred thousand) numbers.
b) The use of capacity from previous allocations does not reach 70%, when the applicant company holds a quantity above 100,000 (one hundred thousand) and up to 1,000,000 (one million) numbers.
c) The use of capacity from previous allocations has not reached 80%, when the applicant company holds a quantity greater than 1,000,000 (one million) numbers.

15 Article 5 Annex to the Draft Regulation.

16 E.g., the Government, regulated bodies and other bodies affected by their activity, user and consumer associations in the area of communications, and users and the general public.

17 ANACOM, Explanatory Note for the Draft Regulation, p. 7.