



ECC Recommendation (16)02

Extraterritorial Use of E.164 Numbers - High level
principles of assignment and use

approved 28 April 2016

latest amended 22 June 2023

INTRODUCTION

Technology and service innovation has transformed the electronic communications landscape in recent years and E.164 numbers are now being used in increasingly flexible ways. This flexibility extends to the use of E.164 numbers from the national numbering plan of one country (Country A) in another country (Country B) on a temporary basis (e.g. mobile roaming or short term nomadic use) or on a permanent basis (e.g. implemented in static devices in a foreign country).

National numbering plans within the CEPT area have developed over the years at different speeds and with a focus on different priorities depending on the needs of the national market. As a result, some countries still place considerable value on the geographic significance of E.164 numbers and depending on the size of the market and the demand for E.164 numbers, some countries have greater concerns regarding future capacity issues while others may not. Therefore, the development of a common definition and approach to extraterritorial use of E.164 numbers remain challenging and thus this Recommendation requires careful consideration by CEPT member countries.

Many CEPT member countries have geographic significance within their national numbering plans and some even apply open dialing plan. This means that a geographic number, either shown in an international or a national format, is bound to a certain geographic area giving also a framework for call routing and charging. This is why, for example, location portability is normally limited in this kind of cases within a numbering area.

ECC Report 194 on Extra-territorial Use of E.164 [7] numbers recognises that extraterritorial use offers advantages but also identifies disadvantages associated with the permanent use of these E.164 numbers outside of the home country.

Since the publication of ECC Report 194 [7] in April 2013, the interest, of the market, in and use of E.164 numbers extraterritorially has increased (e.g. for Machine-To-Machine (M2M) services, which typically use a dedicated M2M numbering range or mobile numbering ranges). Thus, the need for transparency with this type of use is important to ensure compliance with national law related to the use of numbering resources, consumer protection and also to ensure that Recommendation ITU-T E.164 and the sovereign right of each ITU Member State to regulate its telecommunication are respected.

For European Union (EU) Member States the European Electronic Communications Code [4] in its Article 93 requires each EU Member State to make available a non-geographic number range for non-interpersonal communications services with a right of extraterritorial use within the EU. Body of European Regulators for Electronic Communications (BEREC) has the task to establish a database on the numbering resources with a right of extraterritorial use within the EU, in accordance with Article 93(4), and to assist the EU Member States in gathering the information. This database has already been established.

Extraterritorial use of E.164 numbers has already been addressed in some CEPT countries in their national numbering policy in order to reduce uncertainty regarding applicable assignment criteria and conditions of use. Nevertheless, risks identified in ECC Report 194 including capacity exhaustion in existing numbering ranges, enforceability of specific legal requirements (e.g. lawful interception, number portability and emergency communications), complexity regarding applicable jurisdiction and, ultimately, consumer detriment may remain.

Therefore, the purpose of this Recommendation is to promote a common approach to the extraterritorial use of E.164 numbers belonging to a national numbering plan. This is based on high-level principles on assignment and use while leaving sufficient discretion regarding the detailed regulation to the relevant authorities at the national level and the possibility of bilateral agreements between countries. This approach will ensure that regulators and providers will be aware of the intended use of such E.164 numbers and that end-users will be aware of the benefits and limitations of purchasing and using services based on E.164 numbers of a different country.

ECC RECOMMENDATION (16)02 OF 28 APRIL 2016 ON EXTRATERRITORIAL USE OF E.164 NUMBERS, AMENDED 8 MARCH 2019, AMENDED 22 JUNE 2023

“The European Conference of Postal and Telecommunications Administrations,

considering

- a) that the scenario where E.164 numbers from the numbering plan of country A are assigned to end-users in another country B is regarded as extraterritorial use of E.164 numbers in the context of this Recommendation;
- b) that the scenario where E.164 numbers from the numbering plan of country A are assigned to end-users in country A and the E.164 numbers are:
 - i. temporarily used (through roaming services or nomadic Voice over Internet Protocol (VoIP) services) outside of country A is not regarded as extraterritorial use of E.164 numbers;
 - ii. permanently used (through roaming services or nomadic VoIP services) outside of country A may be considered as extraterritorial use of E.164 numbers;
- c) that extraterritorial use of E.164 numbers based on bilateral agreements, such as existing arrangements between countries, principalities or territories (e.g. Italy, Vatican City and San Marino) where E.164 numbers are used extraterritorially, are outside of the scope of ECC Recommendation. However elements of ECC Recommendation may be relevant in such cases;
- d) that Recommendation ITU-T E.164 [1] identifies a specific country (or countries with an integrated numbering plan) or a specific geographic area using 1-digit, 2-digit or 3-digit country codes (CC);
- e) that Recommendation ITU-T E.164.1 [2] makes available international numbering resources for global services in particular to meet customer requirements for the provision of connected devices across borders in compliance with national regulations;
- f) that Recommendation ITU-T E.190 [3] states that international numbering resources exist and should be assigned to serve the needs of the telecommunications community for the evolution of services, the introduction of geographic and non-geographic applications, and changes in the national boundaries;
- g) that Directive (EU) 2018/1972 **Error! Reference source not found.**, requires EU Member States to make available a range of non-geographic numbers which may be used for the provision of electronic communications services other than interpersonal communications services, throughout the territory of the EU, and to attach specific conditions in order to ensure compliance with relevant national consumer protection rules and national law related to the use of those numbering resources applicable in those Member States where the numbering resources are used;
- h) that Directive (EU) 2018/1972 **Error! Reference source not found.**, in recital (246) outlines that “In order to effectively support the free movement of goods, services and persons within the Union, it should be possible to use certain national numbering resources, in particular certain non-geographic numbers, in an extraterritorial manner, that is to say outside the territory of the assigning Member State. In light of the considerable risk of fraud with respect to interpersonal communications, such extraterritorial use should be allowed only for the provision of electronic communications services other than interpersonal communications services”;
- i) that BEREC shall assist national regulatory or other competent authorities, at their request, in coordinating their activities to ensure the efficient management and establish a database regarding the numbering resources with a right of extraterritorial use within the EU;
- j) that ECC Report 153 [5] and ECC Recommendation (11)03 on Numbering and Addressing for Machine-To-Machine (M2M) Communications [6] provide guidance on numbering solutions for M2M;
- k) that ECC Report 194 [7] on the Extra-territorial use of E.164 numbers provides analysis, findings and conclusions on this matter;

- l) that Recommendation ITU-T E.164 [1] states that the national (significant) number provides unique identification of one subscriber irrespective of where the call is generated from within the country or geographic area characterised by a CC;
- m) that geographic E.164 numbers are by definition limited within a certain geographic area, such as national territory;
- n) that routing and charging of calls to and from geographic numbers used extraterritorially may cause technical challenges for involved electronic communications service providers;
- o) that the use, whether nationally or extraterritorially, of E.164 numbers shall not harm national public interests (e.g. security and law enforcement);
- p) that transparency regarding the use of E.164 numbers, whether nationally or extraterritorially, is fundamental to effective numbering plan management;
- q) that national sovereignty shall be respected, and the applicable laws and regulations of the involved countries shall be complied with at all times. (e.g. authorisation regime, consumer protection and privacy laws);
- r) that extraterritorial use of national E.164 numbers for M2M services may provide added value to the global market without raising significant regulatory and user protection risks;
- s) that although the main purpose of the national numbering plan is to serve the national market these E.164 numbers can also represent an alternative to international numbering resources for global services;
- t) that Recommendation ITU-T E.157 [8] states that *“Implementation of calling party number delivery utilizes the features, facilities and applications that are available in the national public telecommunication networks and service offerings, and shall be provided, through agreements between the originating, the transit(s) and the receiving operators. However, the delivery of calling party numbers can transcend national boundaries, in which case it is not only a national matter, but is an international matter involving more than one country”*.

recommends

1. that CEPT administrations should, as a general principle, only assign and only permit the use of E.164 numbers belonging to their national numbering plans for the provision of services inside their home country.
2. that where an exception to the general principle above is being considered, CEPT administrations should ensure that all the following specific principles are respected regarding the extraterritorial use of E.164 numbers:
 - a. given that geographic E.164 numbers are, by definition, limited within a certain geographic area, such as national territory, CEPT administrations should consider excluding geographic E.164 numbers from the exception or restricting the extraterritorial assignment of such E.164 numbers;
 - b. CEPT administrations should consider limiting the extraterritorial use of numbers only to the provision of electronic communications services other than interpersonal communications services using non-geographic E.164 numbers;

- c. the right for extraterritorial use of E.164 numbering resources is subject to the following conditions:
 - i) the country where the E.164 number is used extraterritorially accepts such numbers belonging to the numbering plan of another country to be used in its own territory;
 - ii) such extraterritorial use of E.164 numbers in that country is allowed by the CEPT administration regulating the numbering plan to which the numbers belong to;
 - iii) the Recommendation ITU-T E.164 [1] and Recommendation E.157 [8] are respected.
 - d. there should be a clear positive effect to the citizens, end-users and providers of the country providing the E.164 numbers for extraterritorial use, as assessed by the administration of that country;
 - e. there should be a neutral or an overall positive effect to the citizens, end-users and providers in the country where the E.164 numbers will be used extraterritorially, as assessed by the administration of that country;
 - f. there should be no net negative effect to involved electronic communications service providers when routing and charging calls to and from numbers used extraterritorially;
 - g. that the country where the E.164 numbers are being used extraterritorially may impose rules for guaranteeing equality of conditions of use between such E.164 numbers used extraterritorially and the national E.164 numbers. This is to avoid competitive advantages in the use of specific E.164 numbers and/or for guaranteeing that user rights are respected.
- 3. that information regarding in which countries and for what type of services the E.164 numbers are used/intended to be used should be provided by the applicant/assignee to the CEPT administration regulating the numbering plan to which the numbers belong to and to the CEPT administrations where the service is used;
 - 4. that in cases where problems arise the involved CEPT administrations should cooperate in order to ensure that the principles identified in this Recommendation are respected.”

Note:

Please check the Office documentation database <https://docdb.cept.org/> for the up to date position on the implementation of this and other ECC Recommendations.

ANNEX 1: LIST OF REFERENCES

- [1] Recommendation ITU-T E.164: “The international public telecommunication numbering plan” (11/2010)
- [2] Recommendation ITU-T E.164.1: “Criteria and procedures for the reservation, assignment and reclamation of E.164 country codes and associated identification codes (ICs)” (09/2008)
- [3] Recommendation ITU-T E.190: “Principles and responsibilities for the management, assignment and reclamation of E-series international numbering resources”, amendment 1 (11/2009)
- [4] Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Codes
- [5] [ECC Report 153](#) “Numbering and Addressing in Machine-to-Machine (M2M) Communications”, approved March 2010
- [6] [ECC Recommendation \(11\)03](#) “Numbering and Addressing for Machine-To-Machine (M2M) Communications”, approved May 2011, amended DD MM YYYY
- [7] [ECC Report 194](#) “Extra-Territorial Use of E.164 Numbers”, approved April 2013
- [8] Recommendation ITU-T E.157: “International calling party number delivery” (06/2021)