

Numbering plan for International Mobile Subscriber Identities

1. Legal basis

International Mobile Subscriber Identities (IMSI) are numbers as defined in section 3 para 13 of the Telecommunications Act (TKG) of 22 June 2004 (Federal Law Gazette I page 1190ff), last amended by Article 17 of the Act of 19 February 2016 (Federal Law Gazette I page 254).

This Administrative Order sets out, as required by section 66(1) second sentence of the TKG and the Telecommunications Numbering Ordinance (TNV; Federal Law Gazette I, page 141ff, last amended by Article 4(110) of the Act of 7 August 2013, Federal Law Gazette I page 3154), how the numbering range for IMSIs is structured and configured.

A separate Official Gazette Communication (see Communication No 280/2016, Bundesnetzagentur Official Gazette No 6/2016 of 6 April 2016) sets out the application procedure for IMSIs.

2. Number format and subdivision of the numbering range

IMSI are international identifiers as defined in ITU Recommendation E.212. IMSIs are assigned in blocks that are identified by a block identifier.

The five-digit block identifier comprises the three-digit Mobile Country Code (MCC; Germany: 262) and the two-digit Mobile Network Code (MNC) of the assignee. The IMSI block identifier is followed by a ten-digit Mobile Subscriber Identification Number (MSIN).

IMSI are therefore structured as follows:

IMSI		
(15 digits)		
MCC (3 digits) (Germany: 262)	MNC (2 digits)	MSIN (10 digits)
IMSI block identifier 5 digits		

100 IMSI blocks can be assigned in Germany. An IMSI block contains 10bn IMSIs.

The IMSI block identifiers 262 00 - 262 69 identify IMSI blocks that are assigned for commercial operations. The IMSI block identifiers starting 262 70 - 262 79 and 262 90 - 262 99 are used for temporary assignment for testing purposes. The IMSI blocks 262 80 - 262 89 are kept in reserve and will be available only after publication to this effect.

3. Purpose of use

IMSI are used as a form of unique international identification for subscribers and terminal equipment in public telecommunications networks. They cannot be dialled by subscribers from public telecommunications networks.

4. Type of assignment and requirements for assignment

4.1 Type of assignment

IMSI are assigned in a two-stage procedure as primary and secondary assignments according to section 4(2) paras 2 and 3 of the TNV.

- a) IMSI blocks are assigned upon application to those eligible to apply (primary assignment).
- b) IMSI are assigned to subscribers in accordance with section 4(2) para 3 of the TNV by the primary assignee of the IMSI block (secondary assignment).

When an IMSI block is assigned for testing purposes, it is assigned for the assignee's own use (direct assignment) with a limited duration of a maximum of 2 years. The assignee may apply in text form for an extension of up to two years. Multiple extensions are possible. Each applicant will obtain only one assignment for testing purposes.

4.2 Primary and direct assignments

4.2.1 Material requirements for assignment

A primary or direct assignment is subject to the following requirements being met:

- a) The applicant is a
 - (i) Mobile Network Operator (MNO),
 - (ii) Mobile Virtual Network Operator (MVNO). For the purpose of these regulations, an MVNO is a provider of publicly available mobile telephone services who has a core network but no radio access network (i.e. no air interface); the core network at least includes a Home Location Register (HLR), a facility for voice and/or data call switching (e.g. a Gateway Mobile Switching Center, GMSC) and an interconnection with at least one network operator other than an MNO whose radio access network is being used;
 - (iii) Mobile Virtual Network Enabler (MVNE). For the purpose of these regulations, an MVNE is an upstream service provider for providers of publicly available mobile telephone services who has a core network but no radio access network (i.e. no air interface); the core network at least includes an HLR, a facility for voice and/or data call switching (e.g. a GMSC) and an interconnection with at least one network operator other than an MNO whose radio access network is being used; or
 - (iv) manufacturer of mobile radio technology, in which case only direct assignments for testing purposes are made.

The above requirement is deemed fulfilled when the applicant submits an informative concept demonstrating that he expects to become within a period of six months a company under the terms of one of the four categories. In this case, the assignment is made under the condition subsequent that the assignee proves within a period of six months that he has become a company under the terms of one of the four categories.

For an applicant as defined under 4.2.1 a) (ii) or (iii) who applies for primary assignment, the "interconnection" element is deemed to be proven through the submission of at least one interconnection agreement with a network operator other than an MNO whose radio access network is being used, and/or at least one declaration of intent to this effect signed by both parties.

For an applicant as defined under 4.2.1 a) (ii) or (iii) who applies for primary assignment, the above-mentioned network infrastructure elements can also, in full or in part, be replaced by applicable software, provided it can be demonstrated that this software fulfils the same function as the network infrastructure elements.

- b) The applicant submitted a comprehensive concept for the use of the requested IMSI block. The concept encompasses a presentation of the business model and of the intended technical and economic implementation.

In respect of an applicant as defined under 4.2.1 a) (i) who applies for primary assignment: A roaming agreement with another mobile network operator or a declaration of intent to this effect signed by both parties has been submitted.

In respect of an applicant as defined under 4.2.1 a) (ii) or (iii) who applies for primary assignment: A network sharing agreement and/or roaming agreement with a mobile network operator or a roaming agreement with an operator of a roaming hub or a roaming broker or a declaration of intent to this effect signed by both parties has been submitted.

Please note: In certain cases – especially if services are to be offered in several states – it is possible to apply for ITU resources (i.e. for an MNC from a shared MCC (Mobile Country Code) such as the shared MCC 901 for instance). The applicant is asked to check if use of these resources comes into consideration for them. The use of international numbers from a shared ITU MCC is admissible in Germany in accordance with section 4(1) third sentence in conjunction with the first sentence of the TNV.

4.2.2 Formal requirements for assignment

4.2.2.1 Address for summons in Germany

The applicant must give an address for summons in Germany (if the applicant is a legal entity, it must be a business address including information on the legal representative). Applicants with headquarters in another country must specify a general authorised recipient with an address for summons in Germany. Each applicant may specify one address for summons and one general authorised representative only. If an applicant specifies more than one address and/or general authorised representative, the first address and/or the first general authorised representative specified in the last complete application received by the Bundesnetzagentur will apply. Relevant in determining this is the time at which the application in full is received.

4.2.2.2 Proof of identity

Applicants must provide proof of identity as follows:

a) natural persons must provide a copy of their identity card, passport or similar official identity document;

b) legal entities and partnerships must provide an extract from the commercial register or, if not available, other proof of identity (e.g. extract from the official register of societies and

associations, business registration; if headquarters are not in Germany, equivalent proof in accordance with section 13e(2) of the German Commercial Code (HGB).

c) officially registered civil law companies must provide their official registration; if a civil law company is not officially registered, the company's managing partners must each provide proof of identity as required in a) above.

4.2.3 Follow-up application

An application submitted by an applicant with a primary assignment of at least one IMSI block (follow-up application) will only be granted if, in addition to the material and formal requirements (see sections 4.2.1 and 4.2.2), the following requirement is met:

The degree of utilisation of all IMSI blocks assigned so far exceeds 90%. The degree of utilisation is calculated as follows:

$$\text{Degree of utilisation (\%)} = \frac{\text{Sum of all secondary IMSI assignments}}{\text{Sum of all primary IMSI assignments}} \times 100$$

IMSI blocks that are not, or no longer, assigned on a secondary basis will be granted equal status to secondary IMSI assignments in the calculation, provided the applicant demonstrates that, for technical or economic reasons, secondary assignment is not possible for those IMSI blocks. Equal status is not granted if the applicant can be found to have acted such that these IMSI blocks cannot be assigned.

4.2.4 Acquired rights

In the case of a primary assignment, the assignee acquires the right to make secondary assignments.

Under section 4(2) para 3 of the TNV, the right to assign numbers on a secondary basis also includes the possibility of contracting third parties to make the secondary assignment. Depending on the contractual arrangements, the secondary assignees may be contractual customers of the primary assignee or of the third party.

In the case of a direct assignment, the assignee acquires with the assignment the right to carry out tests in which the IMSI blocks are used solely by the assignee.

4.3 Secondary assignment

4.3.1 Procedure and requirements

Numbers are assigned on a secondary basis under a contract on the provision of network access between a primary assignee, or a third party authorised by the primary assignee and a subscriber.

IMSI blocks assigned on a primary basis must be used efficiently. In particular, a subscriber may only have the number of secondary IMSI assignments required for the service requested by the customer. A primary assignee may only make one secondary assignment of an IMSI to a subscriber for each telecommunication terminal to be addressed.

4.3.2 Acquired rights

With the assignment, the secondary assignee acquires the right to use the IMSI within the framework of the contract through which the IMSI was assigned to him or her.

The secondary assignee is permitted to use an IMSI for a third party within the scope of a service. Such use is deemed to exist where a third party requests the secondary assignee to provide, by means of the IMSI, a service corresponding to the intended purpose of use of the IMSI for the third party. Contractual arrangements amounting to a transfer of the right of use by the assignee to the third party are not permitted (see section 4(5) of the TNV).

The use of an IMSI by the third party for another third party ("third tier use") is permissible and may even happen repeatedly if the business model requires this.

5. Other terms of use for primary and direct assignments

5.1 Deadline for beginning of use

Assignees must start using their IMSI blocks within a period of 180 calendar days after the assignment takes effect.

5.2 Return of unused IMSI blocks

If – contrary to section 5.1 above – an IMSI block is not used within 180 days after assignment or if its use is not planned for a period of 180 days beginning with the date of assignment or the last time the number was used, the IMSI block must be returned without delay by making a written declaration to the Bundesnetzagentur as required by section 9(1) in conjunction with subsection (4) first sentence of the TNV.

5.3 Notification of changes of name or address

Assignees must inform the Bundesnetzagentur in writing, without delay and on their own initiative, of any change in their name, their address for summons or their legal representative. Applicants with headquarters in another country must also inform the Bundesnetzagentur of any change in their authorised recipient or the authorised recipient's address for summons in Germany.

If any changes are made to an entry in the commercial register or equivalent of another country, up-to-date extracts must be submitted to the Bundesnetzagentur immediately.

6. Extraterritorial use in cases of machine-to-machine (M2M) communication

6.1. Definitions

For the purposes of this Administrative Order

1. "extra-territorial use" means the use of IMSIs with the mobile country code (MCC) 262 outside the Federal Republic of Germany on a permanent basis. Permanent use can take place by way of permanent activation of the IMSIs in a foreign telecommunications network or by way of international roaming (permanent roaming). The use of IMSIs with the MCC 262 during travel (temporary roaming) is not considered as extra-territorial use of IMSIs;
2. "M2M communications" means the predominantly automated exchange of information between technical devices such as machines, vending machines, vehicles or measuring equipment (eg. electricity, gas and water meters) or between the devices and a central data processing unit (see Communication No 139/2011, Official Gazette No 5/2011, page 893). Communications can be either wire-based or wireless. A human is not

usually involved in the communications, although limited human involvement does not preclude classification as M2M communications.

If limited human involvement is part of a service, this does not preclude classification as M2M communications for the purposes of the numbering plan at least in the following cases:

- activation/operation/control/monitoring of an M2M application or an M2M device using technical equipment such as a computer, smartphone, tablet, etc. by a human in either a private (eg. smart home) or an industrial environment;
- activation of an application that enables individual communication in the sense of a preselected point-to-point communication but not a call to a freely selectable number. Examples of this are eCalls in vehicles, private emergency calls in lifts and/or vehicles, and concierge services in vehicles.

This list is not exhaustive and is without prejudice to an assessment of new business models.

Note: The Bundesnetzagentur will in due course publish a list of other services with human involvement that are classified as M2M communications for the purposes of the numbering plan.

3. "foreign IMSI" means a number according to Recommendation ITU-T E.212 which begins with an MCC that has been assigned by the ITU to a geographical area or a group of countries and is not identical to the MCC 262 assigned to the Federal Republic of Germany.

6.2 Admissibility of extra-territorial use

By way of derogation from the principle of the inadmissibility of the extra-territorial use of German numbers, the extra-territorial use of secondary assigned IMSIs with the MCC 262 for M2M communications is permitted.

The Bundesnetzagentur may revoke the admissibility of the extra-territorial use of secondary assigned numbers with the MCC 262 for M2M communications as well in individual cases, for specific business models or generally if it finds that through the extra-territorial use there is

- a) detriment to public interests (eg. public safety, number shortage), or
- b) detriment to rights of third parties (eg. competition, consumer protection).

Upon revocation it will determine whether and if so the time frame in which existing applications are to cease.

Note 1: The extra-territorial use of German IMSIs as allowed by the Bundesnetzagentur implies nothing about the legality of the use of these numbers in foreign countries. The assignment holder and/or the user of the number must at their own responsibility clarify the legal framework for the extra-territorial use of German IMSIs in the foreign country concerned and obtain any permission required for such use. Thus the secondary assignment holder and/or the number user is/are responsible for the admissibility under the applicable foreign law of the extra-territorial number use initiated by the holder and/or user. The holder of the IMSI block assignment should draw the contractual partner's attention to these facts.

Note 2: Admissibility of the use of foreign IMSIs for M2M communications in the Federal Republic of Germany is regulated in Administrative Order No 33/2016 (Official Gazette No 11/2016 of 15 June 2016).

7. Special case of IMSI block 262 10 assigned to DB Netz AG

In derogation of the provisions in sections 3, 4.1, 4.2.1 and 4.2.4, the IMSI block 262 10, directly assigned to DB Netz AG, is used for the identification of terminal equipment in the DB Netz AG mobile network.

8. Special cases involving previous assignments

In derogation of the provisions in section 2, there are also, for historical reasons, assignments for testing purposes in the area intended for assignments for commercial operation.

In derogation of the provisions in section 4.1, there are, for historical reasons, assignments of unlimited duration for testing purposes and cases in which an assignee has been assigned more than one IMSI block for testing purposes.

In derogation of the provisions in section 4.2.3, there are, for historical reasons, cases in which assignees were assigned more than one IMSI block on a primary basis without a prior assessment of the percentage use.

9. Entry into force

This Administrative Order becomes effective on 7 April 2016.

This Administrative Order replaces Administrative Order No 85/2000, Reg TP Official Gazette 23/2000, amended by Administrative Order No 11/2002, Reg TP Official Gazette 7/2002 and by Administrative Order No 55/2003, Reg TP Official Gazette 24/2003.