Translation from German

Federal Network Agency for Electricity, Gas, Telecommunication, Post and Railways, Official Gazette 15/2014, p. 2342 et seq.

Notice No. 819/2014

Market Consultation regarding a future Numbering Plan for International Mobile Subscriber Identity (IMSI)

So far, International Mobile Subscriber Identity, IMSI, are assigned in blocks of 10 billion numbers to mobile network operators who have entered into a roaming agreement with other mobile network operators or who intend to do so and who require an IMSI block for services or testing purposes or to manufacturers who require an IMSI block for testing purposes (see para 1 of the "Rules for the Allocation of International Mobile Subscriber Identities", BNetzA, Official Gazette 23/2000 as amended by Decision 11/2002, BNetzA, Official Gazette 7/2002 and Decision 55/2003, BNetzA, Official Gazette 24/2003, the "Assignment Rules").

IMSI blocks are identified by a two-digit Mobile Network Code (MNC). In international bodies it is currently discussed which requirements have to be met by assignment rules for MNC in order to facilitate demand for MNC on the one hand so that competition and service innovation will continue to be promoted but also to avoid scarcity of numbers on the other hand. As an example, reference is made in particular to work within the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations, CEPT; several models for assignment rules are discussed in ECC Report 212 "Evolution in the Use of E.212 Mobile Network Codes" of 9 April 2014.

The BNetzA considers changing the current Assignment Rules and to transfer them into a Numbering Plan according to Sec. 1 Telecommunications Numbering Ordinance (TNV). As a first step, a market consultation shall be conducted in order to put into concrete terms the requirements for possible amendments. In the context of the public consultation, all interested parties have the opportunity to submit their written answers to the questions below.

The BNetzA requests that written comments are submitted by 1 October 2014 to the following address:

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Comments should be submitted by letter or telefax and additionally as editable file by e-mail. BNetzA reserves the right to publish comments (by way of a summary or in full). Business secrets or confidential information is to be marked as such. BNetzA may publish a version of the comments where the statements marked as business secrets or confidential information are excluded.

1. Eligibility to file an application

1.1 In the future, should IMSI blocks also be assigned to other market participants than those currently eligible for assignment?

1.2 If yes,

1.2.1 Who should this be (e.g. providers of M2M services and/or applications, Mobile Virtual Network Operators (MVNO), providers of mobile services, manufacturers of mobile devices)?

1.2.2 Which generally-abstract common element identifies the third parties which should, in your view, be eligible to file an application for assignment? If no single characteristic can be identified, which - possibly different - characteristics identify the different parties eligible to file an application?

1.2.3 Should an applicant be required to possess certain network infrastructure elements in order to be eligible to apply for an IMSI block?

1.2.4 Should an applicant (e.g. with respect to its size) be capable of entering into its own roaming agreements with operators of public mobile networks in order to ensure global reachability of devices via the IMSI allocated to the applicant? If yes, how should the applicant prove its capability?

1.2.5 Are there any other requirements that should have to be met by a further eligible party?

2. Roaming

2.1 If further entities were to become eligible for assignment, how would global reachability of devices, which is to be achieved via the IMSI, be realized? Should international reachability be achieved e.g. through individual roaming agreements of all assignment holders with all providers worldwide or via a national network operator who has concluded international roaming agreements?

2.2 What impact would the different approaches to ensure global reachability of terminal devices have on the number of contracts to be concluded between the various parties involved? Are there further advantages and disadvantages of the different approaches?

2.3 Which of the roaming approaches described at 2.1 would you favor taking into account the cost that are to be expected ?

2.4 In which constellations does roaming not play a role (e.g. private networks with pico- and femtocell-technology)?

2.5 Are there reasons to establish different rules for applications for an assignment of IMSI blocks for applications that require roaming and applications for which roaming is not relevant?

3. Billing

3.1 In the context of billing of telecommunications connections, are there aspects that should be taken into account when developing assignment rules and usage conditions for IMSI?

4. Re-programming of SIM cards

4.1 For which product groups are IMSI permanently embedded in devices and for which product groups is this planned?

4.2 How would you assess the practicability of remote reprogramming (overwriting) of SIM cards ("over-the-air provisioning")?

4.3 Do you participate in the initiatives of GSMA (specifications for "embedded SIM" of December 2013) and/or ETSI to establish new options by means of a flexible configuration (reprogramming) of SIM cards?

4.4 How would you assess possible security risks that may arise through remote reprogramming of SIM cards?

5. Promoting change of provider

5.1 Do you support the introduction of SIM cards that are not tied to a specific mobile network operator and/or mobile services provider?

5.2 Can the tying of an end-user to a mobile services provider or the tying of a mobile services provider to a mobile network operator ("lock in") be avoided by using SIM cards that can be reprogrammed via the air-interface?

5.3 Can the lock in be overcome by furnishing a device with two or more SIM cards of different mobile network operators or by a SIM card equipped with several IMSI?

5.4 Which possibilities do you see to enable change of provider of mobile services at retail/ wholesale level where embedded SIM cards are used?

6. Assignment procedure

According to Sec. 4 para. 2 TNV, numbers are assigned (unless a case of a general assignment is concerned):

1. directly by the BNetzA for own use (direct assignment);
2. by way of primary assignment by the BNetzA to an operator of a telecommunications network or a provider of telecommunications services for contractual secondary assignment (primary assignment); or
3. by way of sub-assignment by a primary assignee for use by the secondary assignee (contractual sub-assignment); the primary assignee can authorize third parties to perform the sub-assignment.

6.1 Must assignments of IMSI by BNetzA always be "primary assignments" or are there cases where "direct assignments" are advisable?

6.2 With respect to different business models for which IMSI are used (in particular also in the context of M2M), who is to be considered the "sub-assignee"?

6.3 In which cases and under which conditions should it be possible that a "direct assignee" uses an IMSI "for a third party", i.e. that the assignee enters into a contract on the use of a number with a third party but remains fully responsible for the use of the number under telecommunications law?

6.4 In which cases and under which conditions should it be permissible that a sub-assignee uses an IMSI "for a third party"?

7. Instruments to prevent shortage of Numbers

7.1 How would you assess - independently from the current Assignment Rules IMSI and under the assumption that anybody could apply for an assignment of MNC - the current and future demand for MNC? Which market participants in particular do you think would express demand for this resource?

7.2 In order to prevent a possible scarcity of MNC, three-digit MNC can be assigned according to ITU-T Recommendation E.212.

7.2.1 What are the aspects both for and against this?

7.2.2. What impact does it have if either (i) three-digit MNC were to be assigned alongside two-digit MNC under one and the same Mobile Country Code (MCC), or (ii) three-digit MNC wereto be assigned under a new MCC to be assigned to the Federal Republic of Germany upon an application to ITU and in parallel the assignment of two-digit MNC under the current MCC 262 for Germany were to be continued?

7.3 Would it make sense and be technically feasible to reduce the size of IMSI blocks? If yes, what size would you deem to be reasonable?

7.4 Would it make sense and be technically feasible to assign a current-size IMSI block for shared use to eligible parties? If yes, how could the identification of the respective assignee be accomplished (e.g. by differentiating the first x-digits of the Mobile Subscriber Identification, MSIN)?

7.5 Would it make sense and be technically feasible to have an assignee manage a current-size IMSI block who manages the IMSI block for shared use and who in turn allots specific areas of the IMSI block to other users:

7.5.1 What are the advantages and disadvantages of this?

7.5.2 How could this be realized (e.g. by way of secondary assignment/ the use of the numbers by the assignee on behalf of third parties/ by way of other means)?

7.5.3 What is your experience with and/or are your views on a model of management of a block of IMSI by an HLR Proxy Provider for shared use which has been introduced in the Netherlands?

8. Extraterritorial use of IMSI

8.1 If you are or want to become an assignee of German IMSI: Are services offered abroad using the German IMSI (i.e. having concluded contracts with customers under foreign law) or do you intend such use? Please elaborate.

8.2 Should a Numbering Plan include rules on such extraterritorial use of IMSI?

8.3 Do you use IMSI with a foreign country's MCC for services provided in Germany (i.e. where contracts are concluded under German law) or do you intend such use? Please elaborate.

8.4 Should it be permissible to use IMSI with a foreign MCC for service provision in Germany?

8.5 If you consider the extraterritorial use of IMSI as described at 8.1 to 8.4 above to be permissible, should Annex E of ITU-T Recommendation E.212 be applied to this situation?

9. M2M Communications

9.1 What do you predict your demand to be for national IMSI assigned by BNetzA in particular for the provision of M2M services?

9.2 Should the Numbering Plan include provisions specifically addressing the requirements of M2M services? If so, which?

9.3 Is it conceivable that IMSI will no longer be relevant for M2M services in the long run because addressing will be done based on other identifiers/ addressing mechanisms?

10. Use of MNC from a Shared MCC +901

10.1 Have you applied to ITU for an MNC from a Shared MCC +901 or do you consider to do so?

10.2 If yes:

10.2.1 What are the arguments both for and against this?

10.2.2 For which applications are you using these MNC or intend to do so?

10.2.3 Which impact will the application to ITU for Shared MNC have, in your view, on the demand for German IMSI?

11. Other

11.1 Are there further aspects (in particular with respect to M2M communications) that argue for an amendment of the current Assignment Rules or should be taken into account in the context of a possible amendment of the Assignment Rules?

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