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| itu-logo | **International telecommunication union****Telecommunication Standardization Bureau** |  |
|  | Geneva, 28 April 2017 |
| **Ref:** | **TSB Circular 22**SG2/JZ | **To:**- Administrations of Member States of the Union |
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| **E-mail:** | tsbsg2@itu.int | **Copy to:**- ITU-T Sector Members- ITU-T SG2 Associates;- ITU Academia;- The Chairman and Vice-Chairmen of ITU-T Study Group 2;- The Director of the Telecommunication Development Bureau;- The Director of the Radiocommunication Bureau |
| **Subject:** | **Preparatory questionnaire for revising Recommendation ITU-T E.164supplement 2 on Number Portability** |

Dear Sir/Madam,

1 Further to the work of ITU-T Study Group 2 and its intention to revise Supplement 2 of Recommendation ITU-T E.164 “Number Portability”, I hereby kindly invite you to fill in the preparatory questionnaire (reproduced in Annex 1) at the following URL: <https://www.itu.int/en/ITU-T/studygroups/2017-2020/02/Pages/Questionnaires/E164supp2.aspx> . It would be appreciated if you would fill in this online questionnaire no later than
**31 September 2017**.

2 Guidance is provided in the questionnaire and an example of a filled-in questionnaire for Japan is provided at the following URL: <https://www.itu.int/en/ITU-T/studygroups/2017-2020/02/Documents/Questionnaire/Attachment-1v2.pdf> .

3 The answers to this questionnaire will give ITU-T Study Group 2 necessary inputs to revise Supplement 2 of Recommendation E.164.

Yours faithfully,

Chaesub Lee
Director of the Telecommunication
Standardization Bureau

**Annex: 1**

**ANNEX 1**(to TSB Circular 22)



*The objective of this “Preparatory Questionnaire” is to find out to what extent it will be possible to collect actual examples of number portability toward establishing an all-IP infrastructure.*

April 2017



**Background of this Questionnaire**

Despite the ongoing transition towards an all-IP infrastructure, telephone numbers are still continually being used as the basic (primary) identifier. Accordingly, existing number portability implementations still have a significant influence on the mechanisms used for call routing and interconnection of IP-technology-based networks.

Number portability is a national matter and various kinds of approaches are thought to be studied/planned/implemented in each country toward establishing an all-IP infrastructure. Therefore sharing actual examples of such cases would be very useful for numbering stake-holders including network operators and service providers or venders in order to smoothly proceed with the work of such as national/international interconnection and its implementation. Finally, this might serve as a useful reference to some other countries with ambitions for deploying IP-technology-based networks.

**Information-1:** Number portability database solution

In clause 12.2 of Number Portability Supplement (E.164 Supplement 2), five options are listed as potential solutions that address the implementation of a number portability database. Overview diagrams for each of the solutions are shown in Figure 1 in the last 2 pages. This figure will be referred from the questions later.

**Information-2:** ENUM-like technology (see Note) utilization

In section 12.2.1 of E.164 Supplement 2, four examples of an ENUM-like technology utilization for solutions corresponding to each number portability database option in clause12.2 are listed. Overview diagrams of those examples are shown in Figure 2 in the last 2 pages. This figure will be referred from the questions later.

NOTE – An ENUM-like technology here means a technology providing capabilities similar to those provided by the standardized infrastructure ENUM. In addition, infrastructure ENUM is defined in [IETF RFC 5067] as an ENUM system that is technically based on [IETF RFC 6116] and is defined and used only inside a network and among networks for routing purposes.

More specifically in the present Questionnaire, the term “ENUM-like” system represents the nationally defined DB system and query mechanism which is used to map an ITU-T E.164 number into a uniform resource indicator (URI) or domain name, or another national database system providing the appropriate mapping functionalities between ITU-T E.164 numbers and URI and/or domain names and/or IP addresses.

**Question 1:** Current number portability database solution

Implementation of number portability and routing of calls differ from country to country based on various kinds of national requirements and mandates and consequently there is no single solution that suits all countries. So this question focuses on the general features of the current database solution deployed in each country.

**Q1-1** Is the number portability databases solution currently adopted in your country included in Figure 1 (Examples of number portability databases solutions)?
(Please Check (✓) the box.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Yes, it is included in Figure 1.** |  | **No, it is not included in Figure 1.** |  |  |
|  |  |  |
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**Q1-2** If the answer is **Yes** in Q1-1 above, which number portability databases solution in Figure 1 is adopted in your country?
(Please Check (✓) the box.)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solution A** |  | **Solution B** |  | **Solution C** |  | **Solution D** |  | **Solution E** |  |

**Q1-3** If the answer is **No** in Q1-1 above, please describe the general features of the current database solution adopted in your country.

* + General features:

**Question 2:** Direction for future number portability database solution

In the process of an ongoing transition towards an all-IP infrastructure, a nationally defined DB system and query mechanism, for instance an ENUM-like system, is then used to map an ITU-T E.164 number into a uniform resource indicator (URI) or domain name, or another national database system providing the appropriate mapping functionalities between ITU-T E.164 numbers and URI and/or domain names and/or IP addresses.

**Q2-1** Is the number portability databases solution for all-IP infrastructure which is/will be/is being planned to be adopted in your country included in Figure 2 (Examples of ENUM-like technology utilization)?
(Please Check (✓) the box.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Yes, it is included in Figure 2.** |  | **No, it is not included in Figure 2.** |  |  |
|  |  |  |
|  |  |  |
| **No decision has been made yet.** |  |  |
|  |  |
|  |  |

**Q2-2** If the answer is **Yes** in Q2-1 above, which number portability databases solution for all-IP infrastructure in Figure 2 is adopted, or will be adopted in the future, in your country?
(Please Check (✓) the box.)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Local ENUM with no sharing of NP data among operators** |  | **Local ENUM with common/shared NP data among operators** |  |  |
|  |  |  |
|  |  |  |
| **National ENUM with collective NP data from all operators** |  | **Hierarchical ENUM** |  |  |
|  |  |  |
|  |  |  |

**Q2-3** If the answer is **No** in Q2-1 above, please describe the general features of the database solution for all-IP infrastructure adopted, or which will be adopted in the future, in your country.

* + General features:

**Additional comments**

If you have any additional comments on the two above questions, please share below:



(Note) Extracted from ITU-T E.164 Supplement 2: Number portability (06/2014)

**Figure 1 – Examples of number portability databases solutions**



(Note) Extracted from ITU-T E.164 Supplement 2: Number portability (06/2014)

**Figure 2 – Examples of ENUM-like technology utilization**

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