

Comments on TRAI Pre-Consultation Paper on Full Mobile Number Portability (Pan-India)

TRAI Query: Inputs / comments of the stakeholders on the most optimum method for implementing Inter-Service area porting out of the three approaches discussed in this paper are requested.

1.1 Implementation of Inter-LSA Porting

Regarding the *Pre-Consultation Paper on Full Mobile Number Portability (Pan-India Number Portability)* published on 20.02.2013, MITS believes that the decision by the Telecom Regulatory Authority of India (TRAI) to provide Pan-India Mobile Number Portability (MNP) across different circles is a positive step forward towards removing restrictions and inhibitors to consumer adoption of MNP. National MNP across zones will make it easier and less confusing for consumers wishing to change their service provider but retain their telephone number. MNP is intended to benefit the consumer and encourage competition among telecom operators. The current regulation – under which subscriber may only port their number from one operator to another within his or her LSA – has prevented some subscribers from porting. While these restrictions were imposed to facilitate the introduction of MNP in India, there is no longer any compelling reason to continue to enforce these constraints, and much to be gained, from a consumer perspective, by removing them. MITS further hopes that these steps are the first in many actions to help increase awareness remove restrictions and ease the process under which subscribers access the MNP facility.

As acknowledged in the consultation paper, the decision to provide Pan-India Number Portability is not one to be made without carefully evaluating alternative approaches for doing so in order to minimize the implementation cost and effort of this endeavor as well as the impact to the existing service.

Much of the complexity that is involved in allowing inter-zone porting is due to the validation that is needed to allow a port request to proceed. Specifically, there must not be a port currently in progress for the number, and also, the number must not have already been ported within the past 90 days apart from the porting history of the MSISDN. In the current scheme, in which porting is restricted to occur within one zone, these validations can be performed by the MNP Service Provider for that zone, since all the information needed to perform the validation is available to that MNP Service Provider. If the decision were made to allow inter-LSA porting but to restrict porting to cases where both LSAs are in the same zone, the MNP Service Provider for that zone would still have the knowledge needed to perform the validation; all that would be required is that the validation that both recipient and donor operators work in the same LSA be dropped, and also to confirm that there is not already a port in progress within some other LSA in that zone. However, in this case, there is no need for the MNP Service Provider for that zone to have access to any information maintained by the MNP Service Provider of the other zone; it already maintains all the data needed to make this determination.

The problem that needs to be addressed is how to validate a port request when porting is permitted between two LSAs that do not necessarily reside within the same zone. In this case, the MNP Service

Provider for one zone has no way of knowing whether there is a port in progress for the number in the other zone.

The consultation paper describes three approaches for achieving inter-LSA porting when the Recipient and Donor operators belong to two different zones. These are:

1. The Recipient submits the port request to the MNP Service Provider of his zone
2. The Recipient submits the port request to the MNP Service Provider of the Donor's (other) zone
3. The Recipient submits the port request to the MNP Service Provider of zone to which the Number Range Holder belongs.

As indicated in the consultation paper, the first two approaches require the exchange of information between the MNP Service Providers of Zone 1 and Zone 2, because the MNP Service Provider of the zone in which the request is submitted will not necessarily have the information needed to carry out the validation, and will need to obtain it from the other MNP Service Provider. In order to achieve this, the following would be required.

1. Network connectivity between the two databases
2. An interface specification that is mutually agreed to by both MNP Service Providers for requesting and obtaining the required data
3. Modifications to the current process implementation, including new messages, timers, error codes, and report modifications
4. Database design and schema changes to maintain the data received from the other MNP Service Provider

The implementation and especially, testing effort, needed for either of these approaches is a very large one., and as a result these approaches would be very costly and time and resource consuming to the Indian telecommunications industry as a whole.

The third approach, in which the request is always submitted to the MNP Service Provider of the zone to which the Number Range Holder belongs, eliminates much of the aforementioned effort. In this case, the MNP Service Provider will have the porting history for that number and therefore each time the number is ported, be able to perform the indicated validations. There is no need for interaction between the two MNP Service Providers, meaning no expense incurred for network connectivity, no protracted testing phase and large scale changes to the software and network design.

In this approach every operator is required to maintain a copy of the National Numbering Plan which they already do, and to consult this data to determine which of the two zones to which the request must be forwarded. Based on the validation by the Operator, it can then submit the request to the relevant MNP Service Provider. In addition to performing the validations that are currently performed on a port request (i.e. no port in progress, number not ported within past 90 days), the MNP Service Provider will

also first perform an additional validation to check that the number belongs to a range for which it provides service. If it does, the port request will proceed as it does now. If not, the MNP Service Provider will use the same mechanism for informing the requesting operator of a validation error that it currently uses – i.e. a message containing a code identifying the error – and when the requesting operator learns of the result, he may simply submit the request to the other MNP Service Provider.

The one disadvantage of this approach is that the subscriber has no knowledge of which MNP service provider is processing his/her claim. However, this should not be a prohibiting factor, especially since the anticipated number of inter-zone ports is relatively small. Because of the simplicity of the approach in which the request is sent to the MNP Service Provider of the Number Range Holder, and the tremendous savings in cost and implementation and testing effort, MITS strongly recommends that this be the approach adopted by TRAI for enabling Pan-India MNP.

Given the strong advantage of this approach and the minimal downsides, MITS strongly recommends TRAI proceed with approach three – giving the original rangeholder MNP Clearinghouse responsibility for processing the port request, regardless of the zone of the donor or recipient.

TRAI Query: Inputs may also be provided on amendments required in the existing licence conditions of the MNP service licence, relating to scope of work, entry fee, licence fee, exclusivity period etc.

1.2 Amendments Required in Existing License Conditions

Necessary amendments to the MNP License and scope of work would need to be made to mandate National MNP. These amendments would also depend on the final approach that the Industry decides on implementation of National MNP.

It is our understanding that no new changes are required in the provisions of the MNP License relating to Entry Fee & License Fee for the introduction of National MNP.

TRAI Query: Comments may be provided on issues related to generation of UPC by a roaming subscriber outside his service area, including generation of UPC for the subscriber desiring to/from porting in J&K service area.

1.3 Generation of UPC while ROAMING

Regardless of the approach adopted, the Subscriber will still need to obtain a UPC. For the J&K area, where Subscribers call 1900 instead of sending an SMS, MITS agrees that operators must ensure that calls made to 1900 while roaming in other areas must result in UPC generation by the Donor operator.

TRAI Query: Comments may be provided on mechanism to be adopted for routing of calls if the number has undergone inter-service area porting.

1.4 Routing of Calls to Numbers Ported across LSAs

We have no comments.

TRAI Query: As the present regulations are formulated for porting of mobile numbers within service area, inputs may be provided regarding modifications required in the MNP regulations

1.5 Modifications Required in the MNP Regulation

Substantive changes would be required in MNP Regulation and would depend on the finalization of the approach for National MNP.

Intra Operator Inter LSA/ Zone porting would need to be mandated as being part of National MNP and such porting should happen through the relevant MNPO. For example if a subscriber of Operator X shifts from Delhi to Chennai and wants to remain with the same operator, such a shift should also be put under the definition of MNP and should be routed through the relevant MNPO.

TRAI Query: Minimum Possible testing scenarios covering the various possibilities of porting.

1.6 Minimization of Testing Scenarios

If as recommended, the approach of requiring the operator to submit the request to the MNP Service Provider of the Range Holder is the approach adopted; this will result in minimization of the extent of testing required.

TRAI Query: Comment on any other relevant point related to full number portability may be provided

1.7 Comments on Any Other Relevant Points Related to Full MNP

1. 1.7.1 Dialing Stored Numbers

The Consultation Paper identifies the three possible ways in which a Subscriber may store numbers in their handset

1. Storing the number directly
2. Storing the number with the prefix “0”
3. Storing the number with the prefix “91”

and indicates that in the first case, calls to numbers stored in this format will not be completed. MITS concurs with the recommendation made that operators should provide a “number has been ported to other service area” instead of the “number does not exist” announcement.

1.7.2 Informing Subscribers of Number Ports that May Result in Rate Changes

In addition, a call to a ported number may result in a higher rate charged to the Subscriber than before the number was ported and the question was raised in the Consultation Paper as to how Subscribers can be informed of the fact that the number was ported out of the LSA. A method commonly employed in other countries for doing this is for the MNP Service Provider to make a Public Web Site available. Anyone may access the Web Site and submit a query for a given telephone number. The result returned from this query will indicate whether the number resides with its original operator, or it was ported and if ported, identify the current serving operator.

1.7.3 Generation and Validation of the UPC

MITS would like to propose a change in the process of generating and validating the UPC.

Currently, in order to port their number, the Subscriber is required to request a UPC from the Donor Operator which is then sent to the Subscriber’s handset via an SMS message. The Subscriber provides the UPC to the Recipient Operator, who includes it in the port request sent to MNP Service Provider. The MNP Service Provider forwards the port request, including the UPC, to the Donor Operator, and the Donor Operator validates that the UPC included in the port request for this MSISDN is in fact the UPC which was sent to the Subscriber.

The proposed process would bring in objectivity and neutrality. Given that the MNP Service Provider is required to act as a neutral third party in the mediation of requests among operators to port numbers, a better alternative would be to allow MNPO to generate, deliver, and validate the UPC and instead of this being done by the donor.

MITS proposes a solution in which this can be achieved with minimal impact to the existing process as follows.

- Prior to sending the initial port request, the Recipient will send a (newly defined) message to the MNP Service Provider to request a UPC for an MSISDN,
- The MNP Service will generate the UPC, store it along with the associated MSISDN in its database, and deliver the UPC via SMS to the Subscriber's handset
- Just as is currently done, the Subscriber will provide the Recipient with the UPC, and the Recipient will include the UPC in the port request. However, in this case, the MNP Service Provider will be the one that validates that the UPC provided is the one that was generated for the MSISDN. Also the MNP Operator could also check whether the MSISDN belongs to the donor with the number ranges present with the MCH.

1.7.4 Awareness Campaign for MNP

We believe that the awareness of MNP is low as is exhibited by the low porting volumes as compared to TRAI projections. We would request TRAI to conduct a comprehensive awareness campaign to support MNP at the earliest. This would also be beneficial in light of Pan India MNP.

1.7.5 Tariff Review for MNP

We are in the process of detailed internal review and discussion on this issue and would approach TRAI at a later date with substantive proposals for Tariff Review for MNP