

Response from MITS Zone 2 on Consultation paper on Review of Mobile Number

Portability (MNP) Process

MITS was awarded MNP License in 2009 to build, operate and run MNP Services in Zone 2 covering South and East of India.

We would like to thank TRAI for an opportunity to respond with our inputs to the consultation paper on Review of Mobile Number Portability (MNP) Process.

Please find below our response to the questions raised within the context of the consultation document issued.

Q1. Would it be appropriate that MNPSF be assigned the task of generating and communicating the Unique Porting Code (UPC) to the subscriber intending to port his mobile number as proposed in the consultation paper?

Response from Zone II: Yes, the task of generation and communication of UPC to the subscriber should be assigned to MNPSF. Below are the advantages of this approach:

1. MNPSF is a central and neutral entity to generate/communicate the UPC information and validate it on receiving the port request.
2. MNPSF can develop reports in a predefined format as suggested by TRAI for analysis and corrective action.

Q2. If you agree to assign the task of UPC generation to MNPSFs, whether the revised process outlined in the consultation paper is appropriate to address the relevant issues being faced in the existing MNP process?

Response from Zone II: Yes, the revised process helps in addressing the relevant issues in the existing process.

1. Proposed process will not only help in reducing the UPC Rejections but other rejection as well because the MCH will generate UPC based on results of donor validations before the porting process is initiated thus reducing the chances of rejections due to validations done by the donor as specified in the regulation.
2. Restricting the misuse UPC process
3. In the existing process, there is a possibility of auto acceptance of port request at the end of 96 hours. In such cases, UPC validation by DO is likely to miss. In the revised process, no port request will proceed further without a UPC validation by the MCH. This may help in reducing cases of fraudulent porting.

4. During shutdown of any operator, MNPSP can generate the UPCs and minimize the dependency on the operator going out of business.

Q3. Do you suggest any other methodology which can address the issues being faced in the existing MNP process? Elaborate your answer.

Response from Zone II: The concerns that exist today could be addressed with the following suggestions, including a specific implementation approach for having the MNPSPs responsible for the UPC process.

Suggestion 1: Recommended Implementation

The process presented in the consultation paper does not specify how the request for generation of UPC is routed to the MNPSP. The implementation that MITS recommend is to have the Recipient Operator send the UPC request message to the MNPSP on behalf of the subscriber.

Summary of the Recommended Implementation:

1. The subscriber request to the Recipient, it can be in any manner devised as suggested in the regulation: face-to-face in a retail setting, at a kiosk, or even via an SMS message to the Recipient operator
2. The Recipient determines which MNPSP would manage the port, then sends a UPC request to that MNPSP via the MNP system.
3. The MNPSP would query the Donor for the information needed to complete the validations (per the new validation process specified in the consultation paper), and verify or auto-accept if the Donor does not respond.
4. If the MNPSP must reject the UPC request, the MNPSP sends all reasons to the Recipient via the MNP system. The Recipient informs the subscriber.
5. If the MNPSP can accept the request, the MNPSP sends acceptance to the Recipient via the MNP system, then generates and sends the UPC in a SMS message to the subscriber's handset.

Rationale for the recommended implementation:

1. The subscriber does not know which MNPSP to send the UPC request. In case we continue to maintain a common code where subscriber sends a UPC request (similar to 1900 today), dependency will be on the Donor operator's network to accept and forward the subscriber SMS to the correct MNPSP.
2. We want to remove the opportunity for the Donor to delay in responding to an SMS request from a subscriber requesting a UPC.
3. We want to know if the Donor ever delays in routing the MNPSP SMS with the UPC to the subscriber. With the Recipient getting the UPC response indicating the UPC is being sent, there is a record in the MCH system, and additionally, the Recipient can inform the subscriber. Delays would be immediately noticed.

4. Sending all the reasons for rejecting the UPC request to the Recipient allows the Recipient to manage the subscriber and perhaps assist as needed in resolving the issues. Moreover, the Recipient is aware of the possible reasons; the subscriber may not understand them if they were sent to him directly.

Q4. How can KYC information available with DO be verified during the MNP process to avoid fraudulent porting? Please elaborate.

Response from Zone II: KYC information is not standard at the moment. Aadhaar number till date is not mandated to be linked for all transactions.

In the new process to support MCH verification of Subscriber Identity.

- a. When MCH sends the query to DO for the subscriber data verification (port type, payment type, etc.) DO should provide Aadhaar details of the subscriber that was provided to the DO that will be stored by the MCH.
- b. When RO sends the Port Request, RO should provide Aadhaar details provided by the subscriber.
- c. MCH will compare the data from the two operators. Rules for passing the validation are required, (e.g. not matching on Aadhaar number is cause to reject or proceed further), and what action should MCH take if the Aadhaar details are not available with either DO or RO?

Rationale:

1. With the ID information from both RO and DO that is then compared and verified by the MNPS, the possibility of fraudulent ports is reduced.

MITS would request TRAI to address additional security requirements in the new regulation if MCH and operators store subscriber's identification information.

Q5. What are the challenges in implementing the proposed MNP processes / framework on the part of stakeholders' viz. TSP (as DO and RO) and MNPS? Elaborate your answer.

Response from Zone II: There will be large scale software changes in MNP application to accommodate the changes, namely shortening of port window, execute donor validations, new timers, new messages, new auto-accept process, reference data for default settings, increased data storage, User Interface and SOAP changes, possible increased data security, UPC generation. MNPS will need to integrate a SMSC for communicating the subscriber the UPC information and port status updates. The changes in the MNPS software will drive the changes in the TSP gateway end, namely processing new messages by both the RO and DO. The DO must also turn off their current UPC generation and validation. Further changes in TSPs internal OSS system

can be elaborated by the TSPs. The changes at both MNPSP end and TSP end will have to be executed at the same time.

Another important aspect to consider here is dependency on deployment of CMS system by DoT. If the CMS system is not universally implemented in all LSAs before the revised process is ready, challenges increase manifold for both MNPSPs and TSPs to support/implement a solution to support the existing 4 days of port validations as well as the revised process.

Q6. Whether MNPSP should be compensated towards the cost of generation and delivery of UPC to the subscriber through SMS? If yes, what mechanism can be adopted?

Response from Zone II: Yes, the MNPSPs should be compensated for the generation and delivery of UPC to the subscriber through SMS. Below are the additional cost components that will impact the overall cost of a port processing by the MCH.

1. There is a considerable cost that will be incurred by MNPSP to integrate a SMSC and SMS solution apart from software changes to enable this feature.
2. In addition to the costs directly attributed to the generation and delivery of UPC, there are the costs incurred for the software changes to insure the Donor has reduced opportunity to attempt retention that requires revisions to the database, User Interface and SOAP to support new messaging:
 - a. shortening of port window,
 - b. executing donor validations,
 - c. new timers & introduction of new messages
 - d. new auto-accept process,
 - e. reference data for default settings
3. The generation and validation of UPC and donor reject reasons is the most crucial part of the MNP process which under the revised process will now be performed by the MCH.
4. Additional resources will be required to handle subscriber's UPC related queries.
5. HW and SW augmentation, integration with SMS aggregator for delivery of SMS to subscribers.
6. Possible increased data security

Post implementation of recent tariff order “TELECOMMUNICATION MOBILE NUMBER PORTABILITY PER PORT TRANSACTION CHARGE AND DIPPING CHARGE (AMENDMENT) REGULATIONS, 2018 (03 OF 2018) that has substantially reduced the porting tariff, MNPSP incurs loss in processing the port request with compensation applicable only on completed ports. By enabling this feature, MNPSP will further increase its cost to process a port and it will need to be compensated in order to sustain its business model.

Under the new process, MCH will charge an additional fee for donor level validation followed by UPC generation and delivery, which can be recovered, from the RO. This fee for Subscriber Port Request pre validation, generation and delivery of UPC should be over and above that is being paid for port completion today which is already very low.

Q7. What would be the appropriate mechanism to reinforce the accountability and role of MNPSP in the proposed scenario?

Response from Zone II: The role of MNPSP can be clearly defined in the revised regulation based on which the software changes will be implemented and MNPSP will function accordingly. MNPSP will be accountable to perform all those tasks during the port process that it is entrusted to perform. Regulation can define timers to specific tasks meant for MNPSP and MNP system can capture any violations. Specific performance reports with key deliverables can be generated by MNPSP and submitted to TRAI on monthly basis for further analysis and enforcing accountability.

Q8. What could be the mandatory obligations on part of the MNPSP?

Response from Zone II: The MNPSPs are neutral third parties, operating under the License awarded by DoT and TRAI Regulations and Directions. The MNPSPs operate as an extended arm of the Regulator to help provide the choice to the end customer port in a time bound, efficient and in a hassle free manner. The MNPSPs must continue to bear responsibility for the high availability of MCH system components and processes under the MNPSP control based on the terms of the DoT License and TRAI Regulations and Directions from time to time.

Per the new proposed process, the MNPSP will be obligated to:

- a) Process each Recipient UPC Request that is received by the system,
- b) Query the Donor as soon as the UPC Request is processed, then
- c) Validate the Donor data as soon as received as well as validate against data stored within MCH.

- d) The MCH must respond to the Recipient with the acceptance of the UPC Request or provide all the reasons for rejection that were identified in the validation process.
- e) The MCH must generate, store and send the UPC via SMS to the subscriber as soon as the MCH determines it is a valid request.
- f) The MCH must also maintain timers for the receipt of the Donor response to the data query and for the expiry of the UPC.

Q9. In the event of large scale disruption or sudden shutdown of network, what could be the appropriate alternative mechanism to ensure delivery of UPC and completion of porting process?

Response from Zone II: The UPC can be generated by the MCH without any dependency on the Donor operator. If there is a disruption or shutdown in network, MCH will not be able to deliver the SMS to the subscriber. In such a case, below are possible options to deliver the UPC information.

The underlying assumption to this question is that only the DO network is down, not the RO.

1. DO should maintain a record of an alternate number or Email of the subscriber. MCH can send the SMS on the alternate number or send it over mail. The porting process can proceed with auto-accept once the UPC in the RO port request is verified by MCH.
 - a. This process would be successful if only the network were down, not DO backend systems.
 - b. The RO should not provide the alternate number or email, since that might provide an avenue for fraud.
2. MCH can host a link to which the subscribers can login and by providing basic information can get UPC information. Since this activity would incur additional costs, MNPS P should also be compensated for this activity

Q10. (a) Do you agree with the process for transfer of the prepaid balance to the subscriber's account as described in the consultation paper? What changes do you envisage in licensing/ regulatory framework to enable the provision? Please elaborate your answer.

Response from Zone II: The process defined in the regulation is the best way to transfer the balance from DO to RO. The way MNPS P can help in the process is by taking the information of remaining balance from DO in one of the existing messages and publish a report at the end of the month. **The DO and RO settle the balance outside the scope of MNPS P.**

(b) If the above process is not agreeable, please suggest alternate mechanism.

Response from Zone II: This is not applicable.

Q11. What should be the regulatory requirements to monitor efficacy of the provision of transferring the unspent pre-paid balance? Please elaborate your answer.

Response from Zone II: The regulator can use the reports generated by MNPS and take necessary compliance from the operators to ensure unspent pre-paid balance is successfully transferred to the subscribers.

Q12. In the proposed scenario of reduced MNP timelines, should the validity of the UPC be reviewed? If yes, what should be the period of validity of UPC? Please elaborate your answer with justification.

Response from Zone II: Yes, the validity of UPC needs to be reviewed. In the existing process, UPC is valid for 7 days/15 days.

As the revised process intends to reduce the porting period from 7 days to 1 day, UPC should be valid for maximum 48 hours from the time it is generated. The valid time period can be longer in the case of corporate ports if this is needed.

Q13. Whether it would be appropriate to review the existing structure of UPC? Please elaborate your answer with justification.

Response from Zone II: From a MNPS standpoint, MCH can accommodate the existing structure of UPC and/or consider any structural change to the UPC if required. It is important to have the flexibility at operator's gateway end as well to accept a modified UPC structure especially in events of an operator closure when UPCs are generated in bulk for porting in limited time.

Q14. If you agree to above, does the proposed structure as discussed above adequately serve the purpose or would you suggest any other mechanism? Please elaborate your answer with justification.

Response from Zone II: The proposed structure of UPC will definitely help in easy identification of connection type and classification of number as individual / corporate based on the position of letter 'P'. MITS, however, would like to highlight a challenge, which needs to be addressed in the new regulation. The information that a MSISDN is prepaid / postpaid or individual / corporate is residing with the DO only. It is therefore imperative to get this information before MCH can generate an UPC to the subscriber. The new process, however, allows UPC generation even when DO fails to respond the

initial port validation message where the information about prepaid/postpaid and individual/corporate is to be shared with the MCH. In such a scenario, it is recommended the MNPSPs set a default UPC value (for example : such ports will have default connection type as prepaid and default port type as individual). Below are the details illustrating the specific scenario:

1. MNPSP sends query to DO for subscriber data validation.
2. DO does not respond by a predefined timer expiry.
3. MNPSP sets a default Port Type (individual / corporate) and a default connection type (prepaid / postpaid) as suggested in the new regulation and stores a flag that default values are used for UPC generation for this specific port. The UPC issued in such a case will also have a different/same format that can be defined in the regulation.
4. On receiving the port request for such MSISDNs, MNPSP includes the flag in the Port Request sent to the DO. Since rejection for wrong port type is possible in such cases, the rejection should be allowed by the DO additionally only for ports with the flag on grounds of incorrect port type raised/missing information – authorization letter in case of a corporate number, outstanding dues etc.
5. The MNPSPs could generate reports detailing frequency of default use and subsequent rejection for TRAI's analysis. The regulation could include penalties that could be incurred should misuse of the reject reason occurs.

Q15. Should the provision of withdrawal of porting request be done away with in the revised MNP process? Please state your answer with justification.

Response from Zone II: The provision of withdrawal of porting request can be done away since the subscriber who is actually interested in porting and made a decision to port has initiated the port request. In addition, the time to port will also be reduced to one day, so having the provision of port withdrawal will add no value.

Q16. What additional changes do you envisage in the MNP regulations? Elaborate your suggestions.

Response from Zone II: Additional Changes are suggested below

Suggestion 1: Mandate a Pre-Port Request Time Period during which Interim Billing Cannot impact the Port

We suggest the regulation include a requirement to prohibit using a recently generated unpaid interim bills as a reason to reject a Port Request. The regulation

could specify a pre-Port Request time period during which bill generation cannot force rejection of a Port Request.

Rationale:

1. One of the methods Donors have adopted to prevent port outs is to generate an interim bill when they find there is a port out requested (discussed in the consultation paper section 2.12, item a.) The unpaid interim bill is then used as justification to reject a port on the grounds of outstanding payments (section 2.12 item a). This attempt to wrongly reject a port should be denied.
2. Note Donor does have recourse with the Nonpayment Disconnect (NPD) process should the subscriber fail to pay the interim bill.

Suggestion 2: Mandate that Donors cannot restart the 90 day Subsequent Port Rejection clock upon a Payment Type change

We suggest the regulation include a requirement to disallow payment type changes to cause the subsequent port restriction clock to restart.

Rationale

1. Donors sometimes prevent port outs by restarting the clock on the subsequent port restriction when there is a port type change, acting as if this change is the

same as a new port in (discussed in the consultation paper section 2.12, item c.) However, the intent of the subsequent port restriction is to insure the operator serves the port in long enough to recoup porting costs. A payment type change is therefore irrelevant.

Q17. Due to the difficulty envisaged, should the subscriber be allowed to reconnect his mobile number even after number return process is initiated? If yes, what could be the criteria? Please elaborate suitable method.

Response from Zone II: During the Non Payment Disconnect process, if the subscriber does not pay during the stipulated period, the DO can ask the RO to disconnect the number. When the RO disconnects the number, it remains with the RO for 60 days, during an aging period. Allow the RO to reconnect such a subscriber once the subscriber can verify payment during the 60 day Aging period. The solution can involve MCH or occur outside MCH. Below are the options:

- **Option 1:** RO Request with DO Confirmation
 - Subscriber presents receipt to RO.
 - RO sends confirm request within 60 day aging.
 - DO confirms payment or claims subscriber did not pay.

- Advantage: DO can refute subscriber claim when applicable; Disadvantage: Industry impact of 4 new messages
- **Option 2:** RO Notification, No DO Confirmation.
 - Subscriber presents receipt to RO
 - RO sends reconnection notification within 60 day aging and MCH sends message to DO.
 - Disadvantages: Industry impact of 2 new messages, DO does not have opportunity to refute subscriber claim

In cases where number return is not initiated due to NPD, we can introduce Number Return withdrawal process which will enable the current operator to raise a withdrawal request if the number has been returned inadvertently. Currently, MNPSP performs manual update of LRN on a case to case basis upon approval from the concerned authorities.

Q18. Should the MNPSPs be allowed to charge for the ancillary services such as number return and bulk database download by TSPs? Please provide your comments with justifications.

Response from Zone II: Yes. MNPSPs should be allowed to charge for the ancillary services such as number return, non-payment disconnects and bulk database download. In addition, MNPSPs should be allowed to charge for the ancillary service of number reconnect after nonpayment disconnect. MNPSPs think that these ancillary services are chargeable since this involves IT resource utilization, manual effort is spent on regular monitoring and follow ups with the concerned TSPs. These ancillary services contribute to a high amount of traffic in our system (number return alone was ~10% of the port traffic), consuming a significant amount of system resources. Moreover, these services provide financial benefit to the TSPs and hence they should pay a fee for such services.

Q19. Would the new technologies, such as blockchain, be helpful for facilitating faster and transparent MNP process? What can be the possible advantages and challenges? Please elaborate.

Response from Zone II: While the use of new technologies such as blockchain in the MNP process could be helpful, their viability and applicability would need to be evaluated.

Q20. If there are any other issue(s) relevant to the subject, stakeholders are requested to offer comments along with explanation and justifications.

Response from Zone II: MNPSP would wish to highlight the below mentioned issues:

1. An urgent need is there to review the per port transaction charge as the MNPSPs are incurring losses. Significant costs would be incurred for implementing the

large scale changes in the MNP system and the MNPSPs would need to be compensated for this appropriately. In the absence of upward revision of tariff to appropriately compensate the MNPSP's to protect themselves from current losses, it would be difficult for MNPSP's to incur further capital costs and add to existing losses.

2. For port requests, which are pending for Activation by the Recipient operator, the MNPSP should consider it to be deemed accepted and go ahead with the Port Broadcast. In the existing process we have observed due to no action by the RO, the port does not reach the activation stage and is terminated after 90 days.