

## **BIF Response to TRAI Consultation Paper on Revision of National Numbering Plan**

- Q.1. Are there any TI resource shortages envisaged in the near future due to the presently adopted SDCA based fixed line Telecom Identifier scheme? Is there a need to revise the criterion prescribed by DoT for allocation of additional Telecommunication Identifier (TI) resources for fixed line access services? Please provide answers with detailed justification.**
- Q.2. How can the (a) Spare SDCA codes and (b) Unused sub-levels out of the levels allocated to TSPs be best utilized to cater for future requirements of TIs for fixed-line access services? Please provide a detailed answer.**
- Q.3. As is the case currently with mobile numbers, in order to ensure availability of TIs for fixed lines, should 10-digit closed numbering scheme be made applicable to fixed line also? Please provide answers with detailed justification.**
- Q.4. Will migrating to LDCA based TI scheme address the constraints in SDCA based fixed line TIs? Please provide answers with detailed justification.**

### **BIF Response to Q.1. to Q.4.**

Government of India has embarked on Bhartnet-3 project with the objective of increasing the fixed broadband connections across the country in rural areas. Further, according to a global report India is going to witness 110 million fixed broadband connections<sup>1</sup> by 2030. Thus requirement of Telecommunication identifiers is bound to increase in coming years. For fixed line services India has adopted the numbering scheme based on LDCA (Long Distance Charging area) and SDCA system (Short Distance Charging area) which is analogous to Taluka of territorial jurisdiction. The unique STD codes have been assigned to each SDCA, while keeping 10-digit numbering scheme common for both fixed line and mobile services. Therefore, subscriber number in all the SDCAs varies from 6 digits to 8 digits, depending on the length of the STD code.

Thus, SDCA system has limitations of providing for subscriber numbers, as the usage of the number resources is uneven across the various SDCAs. Today all the telecom operators have shifted from circuit switched to new technology packet switches. Thus, there is no requirement of having switching system at all the LDCAs. It is understood that BSNL has also migrated itself to NGN switches. Further, tariffs have become simple and there is single tariff for calling across the country. Therefore, LDCA and SDCA system have lost its practical significations because of single national tariff.

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<sup>1</sup> (<https://www.telecomtv.com/content/access-evolution/india-to-be-second-largest-fibre-broadband-market-by-2030-point-topic-44847/>)

Further, service provider is permitted to serve their customer from the switch located anywhere in India.

In view of the above, it is recommended to do away with LDCA and SDCA based call routing system and adopt circle/ LSA based call routing. To implement this there will be requirement of 2-digit access codes for each of the 22 circles/LSA in India and 8-digit subscriber number for all the LSAs. This will help in maintaining continuity of the existing system without changing reallocation norms for TIs. Level 1 series like 100, 101, 131, UAN, Toll free, Tele marketer numbers (140), transactional numbers (160) level may remain the same without any changes.

**Q.5. What are the other possible options, if any, to address the currently envisaged constraints in TI resources for fixed lines in an efficient manner? Please provide your answers with a detailed proposition (including technical challenges, changes required in handling, routing, interconnection and termination of emergency services and other essential calls and associated cost- benefit analysis). Supportive documents, if any, may also be provided to justify your answer.**

**BIF Response to Q.5.**

Authority may also think of changing the numbering scheme completely by adopting 11 digits' common system for both mobile and fixed line. In its earlier recommendations, TRAI has rejected migration to 11 digit codes due to the reason that there will be hardship to fixed line consumers. It is pertinent to mention that that India is projected to have 110 Mn Optical fiber connections by 2030, from the current level of approximately 34 Mn wireline connections. Therefore, with passage of time number of fixed broadband connections will increase in India and it would become more and more difficult to manage any migration to 11 digits as the number of fixed line connections increase, in case there is shortage of TIs in future. We feel, that in case the TRAI feels that change to 11-digit numbering plan has to be done, then the time seems to be now rather than after few years when the total number of fixed line subscribers would be more than 100 Mn.

**Q.6. Is bulk allocation of TI by few TSPs for providing SIP and PRI based services likely to create TI resources shortage in near future? If yes, what are the suggested means to address this issue? Please, provide your answer with supportive data.**

**BIF Response to Q.6.**

Currently TSPs are allocating upto 300 TIs for each SIP or PRI irrespective of use of SIP or PRI. Thus, this is leading to shortage of TIs. All the call centers having out-bound only facility should be given single TI for every SIP or PRI. Customers with DID facility or call centers with only inbound calls receiving facility must be given upto 30 TIs per SIP or PRI or upto 100 on inspection and recommendations of local TERM Cell of DoT. This will stop misuse of the TIs and also help in controlling pesky calls using TIs of locations having STD code similar to mobile numbers eg 79, 80 etc.

**Q.7. Is there a need to introduce appropriate definition for 'inactive connection' for fixed-line services and the exact time duration after which, TIs associated with these inactive connections can be put to reuse? Is there also a need to revisit the definition of 'inactive connection' for Mobile services? Please provide your answers with detailed justification and suggested definition.**

**BIF Response to Q.7.**

There is no need to introduce appropriate definition for 'inactive connection' for fixed line services. The dynamics and usage patterns of fixed line services differ significantly from those of mobile services. The rationale behind defining 'inactive connection' for mobile services was distinct and aimed at addressing specific consumer issues i.e. protection of consumer rights from disconnection due to non-usage, and hence, unrelated to deactivation or optimum utilisation of numbering resources. *The decision to deactivate should remain within the purview of TSPs, allowing them the flexibility to manage their networks and resources efficiently.*

As regards definition of inactive connections for mobile series, the definition and practice are well settled and all processes are well aligned. Hence, there is no need to revisit this definition

**Q.8. a) Whether charges should be introduced for existing and newly allocated TI resources to ensure their efficient utilization? If yes, what should be the charging mechanism and applicable charges? Please provide detailed justification along with supportive documents, if any.**

**b) Should a financial disincentive be imposed upon TSPs for retaining X% or more of the allocated TIs remaining as unutilized beyond a certain timeframe? If yes, please specify the X% with suggested disincentive mechanism and retention timeframe with detailed justification.**

**BIF Response to Q.8.**

Telecommunication Indicators are vital resources and despite the fact that some vanity numbers are being sold by the operators, it would not be in the interest of the industry for the Government to charge the operators for the numbers nor the operator to charge their customers for this resource. It is submitted that TSPs are paying license fee and taxes on sale of vanity numbers.

The telecom services in India are having lowest tariffs also the ARPUs are also one of the lowest in the world. The service providers are already burdened with high levels of levies and duties which are in the range of around 30% of the gross revenue. Any additional charges for TI's would act as an additional burden not only on the operators but also on the customers as the cost will be passed on to the customers. This may lead to increase in cost of the telecom services for the end user as well.

Therefore, it is recommended not to levy fee or charges on allocation of numbering resources, since TSP's are already paying multiple levies and taxes to the Government.

**Q.9. What is the minimum contiguous range of unutilized TIs which the TSPs should be allowed to surrender for mobile and fixed-line services?**

**BIF Response to Q.9.**

There are practical difficulties for TSPs as their existing subscribers gets disconnected randomly and thus rarely full range of 0000-9999 gets free. Thus, there is need to get optimum utilization of existing number resources by effective monitoring and utilization of the disconnected by the TSPs but the surrender of resources should be left on the TSP. Already the allocation criteria for TI's for Mobile and fixed line services are very stringent. Adopting the LSA based criteria will solve the issue of unutilized TI's for fixed line services.

**Q.10. Are there any constraints envisaged in TI resources and its allocation for Machine-to-Machine (M2M) services? If yes, what changes should be incorporated to cater for its future requirements? Do support your answer with detailed justification.**

**BIF Response to Q.10.**

As of now there is sufficient capacity of TIs meant for M2M communication.

**Q.11. What constraints/issues if any, are currently envisaged in the procedure being followed for allocation of Level-1 short codes by DoT? Should the level-1 short codes be reserved for government entities only? Will allocation of level-1 short codes on chargeable basis solve the issues identified in aforementioned question? What are the other possible suggestions for judicious allocation and effective utilization of level '1' numbering resources? Please support your answer with detailed justification.**

**BIF Response to Q.11.**

Level 1 resources are not for commercial use, except for Toll Free and UAN. Therefore, it is not recommended to allocate level 1 on chargeable basis. Thus no change in the existing system of allocation of level 1 resources is recommended.

**Q.12. What are the global best practices being followed for judicious allocation and effective utilization of short codes (akin to Level-1 short codes in India)?**

**BIF Response to Q.12.**

The global examples shared in the consultation paper indicate the charging for these short codes, however, the same is not a feasible option for public

welfare services and the Government emergency response services. We submit that the short codes allocated to government entities should not incur charges as these are used for public service purposes. However, allocation to these agencies should be based on some rational criterion and the utilisation of these codes should be monitored and provided by state agency to the DoT.

**Q.13. Are there any constraints/challenges envisaged with regards allocation and utilization of TI resources for Service Control Point (SCP) codes and Signaling Point (SP) codes respectively? If yes, what changes should be incorporated to cater to future requirements of the aforesaid codes? Do support your answer with detailed justification.**

**Q.14. What constraints/ challenges are anticipated with regards TI resources for Location Routing Number (LRN) codes to cater for futuristic requirements? What changes, if any, should be incorporated to effectively address its future needs? Do support your answer with detailed justification.**

**Q.15. What constraints/ challenges are anticipated in the allocation of TI resources for Intelligent Network (IN) Services like Free Phone service, Premium services, International Toll-Free Service (ITFS), etc.? What changes, if any, should be incorporated to cater for its future requirements? Do support your answer with detailed justification.**

**BIF Response to Q.13. to Q.15.**

No response submitted

**Q.16. What constraints are envisaged towards TI resources for MCC- MNC codes being used for Captive Non-Public Networks (CNPNS)? What changes, if any, should be incorporated to cater for its future requirements? Do support your answer with detailed justification.**

**BIF Response to Q.16.**

We envisage constraint in case of TI resources for MCC-MNC codes being used for captive non-public networks (CNPNS). Presently DoT allocates one million MCC-MNC series to TSPs for CNPNS, that contains the MNC code length of 6 digits. This 6-digit length makes available the resource capacity of 1 million only which will be insufficient for network adoption and rollout by TSPs.

It may be noted that using the 3GPP standards, the MCC-MNC combination can make enough capacity available (of 1 billion resources) for allocation if the length of MCC and MNC code each are of 3 digits. But the DoT adopted allocation methodology wherein the MNC Code length is of 6 digit reduces this capacity availability.

Therefore, to alleviate this challenge, we recommend decreasing the MNC code to 3-digit from the present 6-digit format AAA-BBBBBB-XXXXXX wherein MCC is AAA and MNC is BBBB BB.

Reserving 6 digits' length for such networks is inefficient while making MNC code to 3 digits will increase in the availability of number ranges with TSPs/CNPNs. Further, this approach would be consistent with the requirement of internal network consistency and management.

**Q.17. Apart from the questions posed above, are there any additional issues being experienced by the TSPs regarding the aspects of the National Numbering Plan 2003 and TI resources allocation criteria? If yes, then the same may please be brought out in detailed elaboration with supporting documents.**

**BIF Response to Q.17.**

No response submitted

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