Bharti Airtel Ltd. India & South Asia Airtel Center, Plot No. 16, Udyog Vihar, Phase - IV, Gurugram - 122 015 Haryana, India

www.airtel.in Call +91 124 4222222 Fax +91 124 4243252



TRAI/FY24-25/030 1st August 2024

Shri Sanjeev Kumar Sharma Advisor (Broadband and Policy Analysis) Telecom Regulatory Authority of India, World Trade Centre, Nauroji Nagar, New Delhi – 110029

Subject : Bharti Airtel's Comments on Consultation Paper on *Revision of National Numbering Plan*

Reference : TRAI's Consultation Paper dated 6th June 2024

Dear Sir,

This is in reference to TRAI's Consultation Paper on *Revision of National Numbering Plan* dated 06.06.2024.

In this regard, we are pleased to enclose our comments on the said consultation paper for your kind consideration.

Thanking You,

Yours' Sincerely, For **Bharti Airtel Limited**

Rahul Vatts Chief Regulatory Officer

Encl: a.a



Executive Summary:

Airtel would like to start by thanking the Authority for providing it with the opportunity to respond to *Revision of the National Numbering Plan*, a consultation paper ("CP") that deals with the critical aspects of numbering resources also referred to as **Telecommunication Identifiers** (TIs), an important aspect of communications technology.

The advancement in both fixed and wireless communications has brought about an entire gamut of new services and applications that enable end users to be contactable via various means anywhere and at any time. The number resource is used to uniquely identify and differentiate between different end users. In view of the increasing demand and sophistication of such services and applications, it is apposite that the regulator and licensor have recognised the need to update the existing number resource assignment policies and procedures such that they are aligned with the expected growth of services.

To this end, TIs will play a pivotal role in ensuring that all communications and network management is efficient and will serve as a platform for universal accessibility, facilitating reliable service delivery across various communication technologies.

Airtel appreciates the fact that in regulating the number of resources used, the licensor will be able to strike an important balance between ensuring that the limited number of resources are used optimally and that in so doing they do not impose any undue operational or financial constraints on the telecommunication service providers (TSPs) concerned. In a context such as this, the periodic review that a consultation paper such as this will provide, could not be more timely. It will help enormously in ensuring the continued relevance of TIs in light of technological advances and the emergence of new services or dynamics.

As rightly captured by the TRAI, the DoT presently manages TIs for both fixed and mobile, following the E.164 series of ITU-T Recommendations. The national numbering plan (NNP) 2003 was originally designed to cater to 750 million telephone connections. It is 21 years since then and the overall services and connections have grown far beyond that number (1,199.28mn subscribers, teledensity of 85.69%).

While for the mobile numbering series India has created a much larger pool that has been able to accommodate the growth of the sector successfully, the same is not the case with fixedline services where industry is increasingly facing constraints in rolling out services quickly due to the inefficient methodology of SDCA (Short Distance Charging Area)-based allocation.



The present method of allocating fixedline series at SDCA level has artificially created a scenario where, on the one hand, a TSP cannot expand its service rollout in high demand cities/towns since no new number series/ level is available to it. And, on the other, there are several SDCAs where the demand for fixedline is negligible but whose number resources cannot be deployed by the TSP elsewhere.

Hence, it is crucial to have prudent policy decisions to create sustainable reservoirs for the continued growth of telecom services using fixedline numbering resources.

Therefore, in order to obviate all these constraints, Airtel proposes that fixedline numbering resources / TIs be allocated at the Licensed Service Area (LSA) level with a mandatory interconnection among all TSPs including BSNL at one location in the LSA. This approach can easily be deployed for any new allocations from a cut-off date for new customers, while the existing customers continue to use their existing numbers albeit their dialing pattern will be a full 10-digit closed numbering scheme with a prefix of zero.

If 10-digit closed numbering scheme is made available to fixedline, following benefits will accrue:

a) Uniformity and Simplicity

- It will standardise the dialling process for all calls, eliminating the need for varying digit lengths for local and long-distance calls. It will make it easier for users to dial numbers and it will reduce confusion.
- Consistent numbering across both fixedline and mobile services will simplify the user experience, especially for those accustomed to the 10-digit mobile scheme.

b) Efficient Utilisation of Numbering Resources

- As telecommunication needs grow, a 10-digit scheme will provide a larger pool of numbers, accommodating future demand without frequent changes to the numbering plan.
- A closed numbering scheme will ensure that numbering resources are used efficiently. By adopting a uniform 10-digit format, the allocation process will become more streamlined, preventing the underutilisation that is seen with varying number lengths.

c) Alignment with Technological Advancements

• With the shift from TDM to IP-based networks, a consistent numbering scheme will align better with modern network architectures, simplifying the integration and management of numbering resources.

d) Ease of Management and Regulation

- This scheme will simplify regulatory oversight and allow for more straightforward monitoring, allocation and auditing of numbering resources.
- Managing a consistent scheme will reduce administrative complexity, making it easier to implement and enforce regulations.



e) Aligned with Global Best Practices

• Many countries have adopted closed numbering plans for both mobile and fixedline services. Aligning with these international best practices will ensure that India's telecommunications infrastructure remains competitive and standardised globally.

This approach will also instantly address the constraints TSPs are facing in allocating fixedline PRIs to business/enterprise customers. Airtel believes that instead of any regulatory intervention in how TSPs allocate their fixed numbering resources to business customers, the regulator and the government should look at widening the pool of allocatable fixedline numbering resources. This can only be done by using the LSA-based approach suggested by Airtel.

That is the only sustainable solution that is most pro-consumer, pro fixedline service growth and least disruptive from a network/IT standpoint. Any other measure as suggested in the TRAI CP will only be a stop gap/interim solution.

As regards other identifiers like LRNs, M2M series, SCP/SP codes, IN numbering series, there is not likely to be any resource crunch or constraint in the foreseeable future. Hence, proposing interventions or tweaks in allocation criteria to these services serves no purpose.

In terms of TI for captive networks (CNPNs), while the overall numbering resources are sufficient and within the range that is allocated, there is a need to make the MCC-MNC code consistent with other TIs, i.e., of 3 digits, as the present 6-digit MNC code defies any proper rationale for efficiency. In fact, this approach will immediately make the TIs pool for CNPNs much larger.

On the issue of charging for TIs of any sort, Airtel strongly disagrees. There is no logical correlation between international examples that TRAI has shared in the paper and Indian market realities, since the majority of those markets, the regulators and licensors recover only the cost of administering a particular activity / resource including any payment of license fee/regulatory levy. Since in India, the TSPs already pay a percentage share of their overall telecom revenue (AGR) and this is not based on administrative cost recovery, there is no justification for charging the TSPs for any TI allocation.



Key submissions:

Fixedline Telecom Identifiers / Numbering Resource Allocations:

- ✓ The present fixedline numbering series allocation methodology is highly inefficient. It needs to be brought up to date with what the needs of today's technological advancements are.
- ✓ The fixedline numbering series allocation should move away from the present SDCA-based allocation approach and towards the LSA-based numbering scheme allocation approach.
- ✓ To implement this shift successfully, two important points need to be considered:
 - It should be mandatory for all TSPs (including PSUs BSNL & MTNL) to establish interconnections only at one location in an LSA level for exchange of voice traffic within prescribed timelines (say, within 3 months but before issuing LSA-based allocation).
 - The calls destined for emergency services and originated from fixed line numbers (irrespective of SDCA/LSA based numbering scheme) should be routed at ERSS helpdesk.
- ✓ Under this approach, the existing Subscriber Numbers as well as the SDCA codes already allocated should be allowed to continue for existing customers, while the new LSA-based numbering series will be used for new connections.
- ✓ Under the LSA-based allocation method, the fixedline numbering scheme will mandatorily have to be a 10-digit closed numbering scheme, i.e., the customers will have to dial all the 10 digits prefixed with a Zero ('0'+ SDCA/STD code + Subscriber Number) even from within the same SDCA/LSA.
- ✓ The new LSA-based allocations can be started from a migration or cut-off date onwards, i.e., from 1st January 2025.

Other Telecom Identifier Allocations:

- ✓ There are not likely to be any constraints for the numbering resources or telecom identifiers for the Level-1 services, LRNs, M2M series, SCP codes, SP codes and IN numbering series. Hence, there is no requirement to make any changes to their allocation criterion.
- ✓ The TI for captive networks (CNPNs) are expected to see constraints in future. These can be addressed by making the MCC-MNC code consistent with the other Tis, i.e., of 3 digits, as the present 6-digit MNC code unjustifiably restricts the TI pools available for CNPNs.



Definition of 'Inactive Connection':

- ✓ The 'inactive connection' for fixed-line services is akin to 'inactive connection' for mobile services hence there is no need for any intervention or for creating any specific definition for this purpose.
- ✓ The definition of inactive connection for mobile series and practice has hitherto been well settled and all the processes well aligned. Hence, there is no need to revisit this definition for mobile as well.

Charging of Telecom Identifiers:

- ✓ Airtel does not agree with the introduction of any charges for the existing and/or new TI allocations, nor does it believe any financial disincentives should be applied.
- ✓ In India, TSPs already pay a substantial amount towards License Fee (LF) as a % of revenue, instead of administrative cost recovery. Hence TSPs in India contribute a significant sum through LF for the use of TIs. There is, therefore, no justification for any separate charging of the TIs.

Surrendering of Telecom Identifiers:

- ✓ There is no requirement to define surrender process for underutilized TIs.
- ✓ DoT should not withdraw suo-motu the TIs already allocated to TSPs. A confirmation from the TSP shall be mandatory before considering withdrawal of any TI.

A detailed response to the consultation paper is provided in the subsequent sections.



Q1. 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.

Answer:

Yes. There are shortages. These shortages are only likely to continue increasing in many more of the SDCAs/LDCAs in the future as growth of fixedline accelerates in specific cities. What is important to note here is that there is a huge opportunity for the growth of Fixedline with close to 35 million home passes already present in these particular cities.

Airtel believes that the present SDCA-wise utilisation and assignment of fixed-line TI is **not at all optimum**. It leads to inefficient utilisation of the numbering resources. On the one hand, a TSP gets stuck with surplus in low-demand locations and, on the other, it faces shortages/ constraints in high-demand locations. In some cases, the shortage may be at SDCA level and, in some, at the LDCA level (for instance, the number constraints in Gurugram LDCA, which is also an SDCA with the STD code 124).

As already discussed in the instant consultation paper, there are many existing SDCAs where the number series are exhausted and the TSPs are finding it challenging to serve the growing customer base.

Therefore, in the view of Airtel, the only sustainable solution for obviating constraints at both SDCA and LDCA level is to move away from the present SDCA-based allocation approach towards the LSA-based numbering scheme, akin to the mobile numbering resource allocation.

Under this approach, the fixed-line number series shall no longer be issued on an SDCA basis, but rather for the entire circle/LSA. This allocation method will significantly enhance the availability of numbering resources for TSPs.

However, completely repealing the existing SDCA codes and ultimately shifting to LSA codes (including for existing customers) is a mammoth exercise and could prove disruptive since it will require exhaustive changes in the network routing design throughout the country, and lead to changes in the Subscriber Numbers (SNs) assigned to existing customers.

A better and less-disruptive model would be one where the existing Subscriber Numbers as well as the SDCA codes already allocated are allowed to continue for existing customers, while the new LSA-based numbering series is used for new connections.



This will mandatorily require the fixedline numbering scheme to be a 10-digit closed numbering scheme, i.e., customers will have to dial all 10 digits *prefixed with a Zero* ('0'+ SDCA/STD code + Subscriber Number) even from within the same SDCA/LSA.

The TRAI has highlighted that two levels (39 and 50) are available and hence can effectively give 2 crore number resources for fixedline pan-India for new connections.

This approach will minimise customer inconvenience with the least network disruption, while simultaneously ensuring an adequate supply of numbering resources to meet the immediate requirements and ease out shortages in number resources.

Example: For instance, one of the LDCAs in the Haryana LSA is the Gurgaon LDCA. It consists of 5 SDCAs – Gurugram, Nuh, Firozpur, Palwal, Faridabad – with the SDCA codes 124, 1267, 1268, 1275 and 129, respectively. It is Airtel's suggestion that new vacant levels, say 39-XXX, be assigned to TSPs for new customer acquisitions in Haryana LSA. Thus, an existing customer A in Gurgaon having the SN AAAAAAA, or a customer B in Palwal having the SN BBBBBB will continue to have the same SNs and SDCA codes – i.e., 124-AAAAAAA and 1275-BBBBBB, respectively (with any caller – whether from within the same SDCA or outside – having to dial all 10 digits mandatorily). However, a new customer C (anywhere in Haryana LSA – including Gurgaon LDCA) will have a number allocated as 39-XXX-CCCCC.

Existing	SDCA	Existing Subscribers	Future Connections
124	Gurugram	No change and will remain with existing format	Allocate new LSA code - 039 - All SDCAs will be allocated with new number series followed by 039 - Short code dialling will be replaced by 10-digit for all new customers with 039XXXXXXX -ERSS readiness and rollout mandatory for entire circle
129	Faridabad		
1267	Nuh		
1268	Firozpur		
1275	Palwal		

To implement the above solution, there are two important considerations:

- It should be mandatory for all TSPs to establish interconnections at one location in an LSA level for the exchange of voice traffic, within prescribed timelines (say, within 3 months but before issuing LSA-based allocation).
- The calls destined for emergency services and originated from fixed line numbers (irrespective of SDCA/LSA based numbering scheme) should be routed at ERSS helpdesk.



It must be noted that establishing interconnection at the LSA level will be technically efficient and also economically prudent for all TSPs. Further, this approach will also help the PSUs by freeing up their capital and resources in SDCAs/LDCAs where their equipment is reaching the EoL (end of life). This will eliminate the need to establish the interconnection at SDCA/LDCA which is extremely time consuming and slow process which in turn leads to delay in roll out of services, only with BSNL. This is extremely important for the success of LSA level allocation and both DoT and TRAI vision for digital connectivity across the country.

Under Airtel's proposed approach, **there is unlikely to be any challenge** at customer billing level (billing system) and network routing level (minor updates may be there) if new numbers are allocated at LSA level. However, in terms of IT development, TSPs may have to streamline their internal number management processes to ensure proper customer journey management – both of which will undergo some changes.

The new LSA based allocations can be started from migration date 1st January 2025 onwards.

Q2. 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.

Answer:

Please see the response to Q1 wherein Airtel recommends that the fixedline TI scheme should be allocated on the LSA basis, which is the only immediate and long term sustainable solution. Any other approach will be an interim one and work for a limited period of time.

Hence, Airtel does not propose any option other than the LSA-based allocation.

Q3. 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.

Answer:

Yes. Fixedline TIs should be made equivalent to a 10-digit closed numbering scheme in the same way that a mobile number is allocated. In fact, the suggested approach of an LSA-based allocation in response to question-1 will address this requirement effectively.



The 10 digit closed numbering scheme will provide the benefits of uniformity and simplicity, efficient utilisation of numbering resources, alignment with technological advancements, ease of management and regulation and aligned with global best practices.

Q4. Will migrating to LDCA based TI scheme address the constraints in SDCA based fixed line TIs? Please provide answers with detailed justification.

Answer:

The LDCA-based TI scheme is neither sustainable, nor will it work in the long-term. In fact, even at present, there are situations where LDCAs are constrained. If one takes the case of Gurugram, for instance, which is SDCA and LDCA both, one will find that it is already TI allocation constrained.

The solution proposed by the TRAI for allocation of the fixedline numbering scheme on the LDCA instead of SDCA will solve the number resource constraint of SDCAs that are not LDCAs. But the SDCAs which happen to be LDCAs as well will still face the number resource constraint, e.g., Gurugram (0124) and Ghaziabad (0120).

Therefore, Airtel strongly recommends that the fixedline TI scheme should be allocated for LSA as suggested in the response to Q1. Once that is implemented, there will be no need for migration to LDCA-based scheme and, in one go, both the SDCA as well as the LDCA-based constraints shall get addressed.

Q5. 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.

Answer:

Please see the response to Q1 recommending that the fixedline TI scheme be allocated on the LSA basis because this is the only sustainable and long term solution. This approach will be non-disruptive to consumers and least disruptive in terms of network routing/IT implementations, if at all.

In other words, Airtel does not propose any option other than the LSA based allocation option.



Q6. 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.

Answer:

There may be a quite significant demand for an SIP-based PRI service in future for which a TI resources shortage may be reported. However, this shortage is not anticipated due to how TSPs allocate resources to enterprise customers, <u>but rather due to the present</u> <u>inefficient methodology of allocating fixedline series at SDCA level</u> as highlighted in previous questions.

As a solution, Airtel recommends that the LSA-based fixedline numbering resources allocation approach as proposed in response to Q1 be followed. This will also help obviate the constraints on SIP-based PRI allocations as TSPs will be able to deploy the number range as per market demand and business requirements.

Adequate availability of numbers for assignment of bulk PRIs should be ensured in the hands of TSPs for allocation to business/enterprise customers. This can be ensured by accommodating next two years of projected growth in such PRIs that should be available with TSPs at the minimum at any given point in time.

Though SIP and PRI services in large number are demanded by the business users, Airtel believes that with the 160 number series to be used for the transactional and service calls, any apprehension of TI resource shortages in future for SIP and PRI based services, will also be balanced out/addressed.

Also, Airtel recommends that an LSA based 10-digit numbering series for fixedline as suggested in response to Q1, should address the apprehension regarding resource constraint due to bulk allocation.

Q7. 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.

Answer:

The definition for 'inactive connection' for fixedline services is akin to definition for mobile services i.e. upon deactivation of the number the connection is termed as inactive **therefore there is no need to re-iterate / define the same for fixedline**.



There are significant constraints with the TSPs on availability of fixed line resources in specific SDCAs as explained previously and defining a mandatory period for reallocation/re-use will further reduce the availability of resources. We have not come across any concerns either notified by customers or observed by TSPs themselves on the current practice of re-use, **therefore no intervention is warranted**.

Accordingly, the **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 as well**.

Q8. 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?

Answer:

No. Airtel does not agree with the introduction of any charges for existing and/or new TI allocations, nor with applying any financial disincentives.

While globally in many markets from EU to Asia to US, numbering resources/TIs are charged to TSPs/entities using numbering resources, in India this SHOULD NOT be applied since Telcos already pay a substantial amount towards license fee as a percentage of revenue.

In many of the markets highlighted by TRAI where TIs/numbering resources are charged for, it is also a fact that the license fee is largely charged on an administrative cost recovery basis. Hence, in a way, TSPs in India are already contributing substantially more through the license fee.

Airtel therefore recommends that no charges should be applied on use of TIs. Nor should there be any financial disincentives for this purpose.

Q9. What is the minimum contiguous range of unutilized TIs which the TSPs should be allowed to surrender for mobile and fixed-line services?



Answer:

The TIs for mobile and fixed line services are allocated by DoT and the same are being utilized by TSPs, and there is no requirement for surrender of minimum contiguous range of unutilized TIs since the same are being utilized as per business requirement.

Further, there is another challenge in the case of fixedline i.e., presently, BSNL mandates interconnections at SDCA/LDCA level. This is troublesome, time consuming and makes TI utilization ineffective. The TSP can only launch voice services in town (SDCA) post the commercial opening of POI with BSNL.

In view of the above, there is no need to define surrender process for underutilized TIs.

Airtel further submits that DoT should not suo-motu withdraw the TIs already allocated to TSPs. A prior confirmation from the TSP shall be mandatory before considering withdrawal of any TI.

Q10. 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.

Answer:

No, Airtel does not envisage any constraint as of now, and there are sufficient ranges available with the DoT, a fact also captured in the TRAI CP. Additionally, there are adequate resources to meet future demand and, therefore, no changes are recommended in TI resources for M2M services.

Q11. 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.

AND

Q12. 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)?



Answer:

Yes, the allocation of these codes to government or such departments, agencies should be based on some rational criterion and their utilisation should be monitored.

Additionally, the present scheme of reserving the range for TSP's own use (*e.g., 121 for Airtel*) should be continued.

Q13. 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.

Answer:

No constraint or challenges are envisaged as of now with regard to allocation and utilisation of TI resources for Service Control Point (SCP) and Signalling Pont (SP) codes.

Service Control Point (SCP) codes: The SCP codes are allocated to TSPs for IN services starting at 1800 and 1860. The SCP code is a 3-digit operator identifier leading to IN service numbers being between 11 and 13 digits long. These SCP codes are sufficient for the foreseeable future.

Signalling Point (SP) codes: The SP code, as per 3GPP standards, has a resource capacity of 16384 available for allocation which are sufficient considering the current market dynamics. Hence, Airtel does not envisage there being any constraint in this case as well.

Accordingly, Airtel does not recommend any changes in TI for both of these codes.

Q14. 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.

Answer:

No constraints are envisaged at this moment or for the foreseeable future. The LRN code is four digits long and a total of 388 LRN numbers are available, out of which 175 LRNs are allocated to TSPs.

There will be sufficient options to reserve additional LRNs for future requirements.



Q15. 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.

Answer:

No constraints are envisaged at this moment or for the foreseeable future, in allocation of TI resources for IN services like ITFS, Free Phone, Premium services, etc. Hence, there is no need to make any changes in the present allocation criteria for these TI resources.

Q16. 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.

Answer:

Yes, there are likely to be constraints in the 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 contain an MNC code length of 6 digits. This 6-digit length makes the resource capacity of only 1 million available. This will be insufficient for network adoption and rollout by TSPs.

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

This can be understood from the table below:

MCC length	MNC length	MSIN	Remark
AAA	BBBBBB	XXXXXX	Allocation criteria adopted by
		(6 digit =1mn	DoT
		users)	
AAA	BBB	XXXXXXXXX (9	Recommended allocation
		digit=1 Bn users)	criteria which is also in line with
			3GPP standard and also
			business friendly

Therefore, to alleviate this challenge, the MNC code should be shortened from its present 6-digit format 999-200000-XXXXXX to a 3-digit format.



Reserving 6 digit lengths for such networks is inefficient. MNC codes of 3 digits will increase the availability of number ranges with TSPs/CNPNs. Further, this approach will be consistent with the requirement of internal network consistency & management.

Q17. 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.

Answer:

No Comments.