Telecom Regulatory Authority of India

Recommendations

on

Revision of National Numbering Plan

06th February 2025

Tower-F, World Trade Centre,
Nauroji Nagar, New Delhi-110029

CONTENTS

TABLES

ANNEXURES

Chapter - I
INTRODUCTION

1.1 In a rapidly evolving world of telecommunications, recent advancements—such as Machine-to-Machine (M2M) communication, Internet of Things (IoT) devices, and the transformative capabilities of 5G networks—have ushered in a hyper-connected ecosystem where devices, sensors, and systems seamlessly exchange information, collaborating autonomously regardless of time or geographical boundaries. In this vast interconnected landscape, where billions of devices and users seamlessly coexist, the ability to uniquely identify and distinguish each end-user and device becomes crucial. This identification ensures seamless connectivity and efficient service provisioning.

1.2 Numbering resources play a vital role in uniquely identifying both devices and users within the telecommunications network. They serve as the foundation for universal accessibility, ensuring efficient and reliable delivery of telecommunication services to consumers, businesses, and industries. ITU-T recommendations, specifically under Series 'E,' address overall network operation, telephone services, service operation, and human factors. These ITU-T recommendations define the structure and functionality of numbers used for international public telecommunications

1.3 The National Numbering Plan (NNP) introduced in 1993 was a significant step towards the rapid growth of the telecommunications industry. Subsequently, the NNP 2003 was designed to address the challenges posed by a Multi-Operator, Multi-Service environment. Its goal was to remain flexible enough to meet numbering requirements for the next 30 years without altering its fundamental structure. The plan encompassed the numbering needs of Basic, Cellular mobile, and new telecom services, carefully allocating different digits to enable user-

friendly dialling and maintaining uniform digit lengths. The allocation of numbering resources is done according to the National Numbering Plan (NNP-2003). It ensures the allocation of identifiers, adhering to international standards and defining the numbering space to accommodate current and future services. The Department of Telecommunications (DoT), as the custodian of numbering resources, oversees management and allocation across various services—such as fixed-line, mobile networks, short-codes, Machine-to-Machine (M2M) connections, and free phone services.

1.4 However, due to the unprecedented growth in the mobile segment, some underlying assumptions of the NNP 2003 became obsolete, rendering the plan inadequate. Consequently, a review was necessary. In response to the escalating demand for numbering resources for mobile services, the Telecom Regulatory Authority of India (TRAI) issued recommendations titled '*Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services'* on *May 29, 2020*. These recommendations addressed the increasing need for numbering resources in mobile services. It emphasized on monitoring mechanisms, advocated for a centralized database, and notably recommended a revision of the NNP 2003. The overarching goal was to facilitate seamless service provision while ensuring transparent and sustainable allocation of numbering resources. Additionally, the current National Numbering Plan (NNP) 2003 encompasses fixed-line and mobile numbering resources, as well as Intelligent Networks (IN) and Service Control Point (SCP) codes. However, it does not cover other numbering resources currently allocated by the DoT, such as Location Routing Number (LRN), M2M, Mobile Country Code-Mobile Network Code (MCC-MNC), and SP (Signaling Point) codes.

1.5 In recent years, the availability of numbering resources has faced challenges due to significant service expansion. Both fixed-line

segments and mobile services have experienced substantial growth. As of the end of October 2024, there are 1188.20 million telephone subscribers, resulting in a tele density of 84.46% in the country. Additionally, with the impending widespread adoption of 5G and IoT technologies, effective allocation and utilization of these resources have become increasingly critical. Much like spectrum resources, numbering resources are finite and necessitate periodic revisions to accommodate unforeseen growth and new services. Therefore, meticulous assessment of numbering resource utilization and prudent policy decisions is essential to maintain a sufficient reserve for the sustainable growth of telecommunications services.

1.6 In the context outlined above, the TRAI received a reference dated September 29, 2022, from the DoT (**Annexure-I**). This reference sought recommendations for revising the National Numbering Plan (NNP) to address current and potential future challenges related to the availability of sufficient fixed-line numbering resources. Through this reference, DoT aims to better manage and allocate numbering resources and ensure a sustainable numbering framework as subscriber numbers grow. The inclusion of Machine-to-Machine (M2M) resources and Captive Non-Public Networks (CNPN) in its scope aligns with future demands, especially from industries requiring dedicated connectivity. The DoT reference letter primarily mentions the shortage of fixed-line and inter-alia mentions, "*To address the present and possible future constraints related to the availability of adequate fixed line numbering resources arising out of rapid growth, a review of fixed line numbering plan is required after due consultation with stakeholders*."

1.7 In regard to numbering resources used in Telecommunication networks, The Telecommunication Act, 2023 inter alia defines 'telecommunication identifier' (TI) *"as a series of digits, characters and symbols, or a combination thereof, used to identify uniquely a user and*

telecommunication service, a telecommunication network, elements of a telecommunication network, telecommunication equipment, or an authorised entity". This definition of TI specifically states that the TI can be a series of digits, characters, and symbols or a combination thereof, and a TI resource is crucial for every user, device, network element, or entity for its unique identification and also for managing and routing communications efficiently and accurately across diverse and complex global networks.

THE CONSULTATION PROCESS

1.8 In light of the above context, the DoT functions as the exclusive custodian of all TI resources, maintaining comprehensive datasets about their allocation and utilization. On this premise, the TRAI, in response to the reference received from the DoT, requested the latter to provide current datasets related to:

(a) Fixed-line numbering resource allocation.
(b) Allocation and utilization of mobile numbering resources.
(c) Short codes, Number Portability (LRN) codes.
(d) Service Control Point (SCP) codes.
(e) Signalling Point codes.
(f) M2M numbering resources

1.9 Subsequently, requested datasets were obtained from DoT and were mutually deliberated upon through a meeting between DoT and TRAI officials, convened at TRAI headquarters. TRAI also conducted meetings with various TSPs to identify challenges in numbering resource allocation and utilization. Furthermore, TRAI examined the feasibility of transitioning from the current Short Distance Charging Area (SDCA)-based Numbering Plan to an alternative scheme.

1.10 TRAI undertook a comprehensive analysis of all aspects affecting the allocation and utilization of TI resources. This exercise culminated in

the release of a Consultation Paper (CP) on 6th June 2024, seeking stakeholder inputs to ensure adequate numbering resources. Comments and counter-comments were invited from stakeholders to be submitted by 4th and 18th July 2024 respectively. In response to requests from associations and stakeholders, these deadlines were extended to 1st August 2024 for comments and 15th August 2024 for counter-comments. All submissions were subsequently made available on the TRAI website. An Open House Discussion (OHD) was held on 8th October 2024 to facilitate further deliberations.

1.11 Drawing on stakeholder submissions, discussions during the OHD, and detailed analysis, TRAI has examined the issues and formulated these recommendations:

(a) **Chapter I** provides the background.

(b) **Chapter II** presents an in-depth analysis of the issues raised in the consultation paper, incorporating stakeholder feedback.

(c) **Chapter III** consolidates and summarizes the final recommendations.

1.12 In finalizing the recommendations, TRAI adopted a holistic approach, considering the sector's evolving needs and the imperative for equitable and efficient allocation of TI resources. The implementation of these recommendations is expected to ensure the availability of adequate TI resources to meet the demands of both current and future telecommunications services.

Chapter – II

Telecommunication Identifiers, their allocation, Utilization, and constraints

2.1 The development of a robust strategy for overseeing TIs must carefully account for the legitimate requirements of diverse stakeholders. These stakeholders include service providers, subscribers, and TI resource custodians. Balancing their needs ensures a sustainable and efficient numbering resource allocation and utilization mechanism. Factors to be considered while strategizing the allocation and utilization of TI resources include the following key factors: -

(a) **Prudent Modifications and Infrastructure Costs**: Any adjustments to the existing TI plan should be approached with caution. Substantial modifications may translate to substantial investment in network infrastructure, thereby putting a financial burden on the service providers.

(b) **Standardized Dialling Pattern**: Implement a consistent dialling pattern across the country and among service providers. This simplifies user experience and reduces confusion.

(c) **Business Considerations**: Completely altering the numbers can impose unnecessary financial burdens on businesses. The costs associated with updating advertising materials, stationery, and forms further amplify this strain. Therefore, minimizing disruption should be a key consideration before proposing any transition.

2.2 In continuation of the preceding chapter, the strategy for overseeing adequate availability and judicious allocation of TIs plays a pivotal role in shaping regulations and principles governing the assignment of numbers across various telephone services operating on public networks. This comprehensive strategy encompasses the allocation of numbers for a diverse range of services, including international calls,

trunk services, emergency services, toll-free lines, and Intelligent Network (IN) services. A few key terms of reference governing TI resource management effectively are as stated below:

(a) **Comprehensive Coverage of Services**: The strategy should comprehensively address all types of telephone services. This includes ensuring that each subscriber, regardless of their network type, is provided with a distinct number.

(b) **Adherence to ITU-T Recommendations**: The national numbering plan 2003 already aligns with relevant ITU-T Recommendations. This ensures consistency and compatibility across networks. Subscribers can rely on a standardized numbering system, regardless of their location or service provider.

(c) **Resource Monitoring and Reallocation**: The resource manager should monitor the utilization and reallocation of numbering resources. This proactive approach ensures efficient interconnection and seamless routing of calls.

2.3 Fixed-line TI Resources

2.3.1 The DoT in its reference dated 29.09.2022, expressed concerns regarding current and anticipated constraints related to the ample availability of fixed-line TI resources, citing rapid growth as a primary factor. DoT stressed the imperative need to review the fixed-line TIs allocation plan.

2.3.2 In the consultation paper, an analysis of the data received from the DoT was carried out, including the SDCA-wise details of the allocation of TIs to TSPs, their corresponding utilization, distribution of available TI resources, their allocation to TSPs, etc. The detailed analysis of the data, revealed several concerns, and the same are summarized below: -

- **Shortage of Telecommunication Identifier Resources -** Only 3 out of 10 TSPs providing fixed-line services are demonstrating higher utilization in a few SDCAs.
- **SDCAs Having Zero or Less Than 100 Wired Line Subscribers-** Out of 2,645 SDCAs, 58 have no subscribers, while 275 have fewer than 100 fixed-line subscribers. Additionally, in SDCAs with just over 100 subscribers, numbering resources remain significantly underutilized.
- **Allocation and utilization of wireline resources too liberal. -** The growth of the fixed-line subscriber base lags significantly behind mobile services, driven by limited demand and the high costs and time associated with infrastructure development. However, the current allocation criteria set by DoT appear to be overly liberal, enabling service providers to obtain additional numbering resources easily. In addition, TSPs use fixed-line TI resources for SIP and PRI very liberally.

2.4 Bulk Allocation of TIs through SIP and PRI Technology

2.4.1 A detailed review of monthly wireline subscriber reports from various TSPs, conducted towards the issue of the consultation paper on the Revision of the National Numbering Plan dated 06th June 2024, when cross-referenced with data provided by the DoT, has brought significant inconsistencies to light. For several TSPs, there is a noticeable gap between the reported utilization of numbering resources submitted to DoT and the actual number of fixed-line subscribers declared to TRAI. According to the data furnished by DoT, the divergence between the telecommunication identifiers allocated by TSPs and the fixed-line subscriber figures reported to TRAI is considerable, as already illustrated in Table 2.5 of the consultation paper. This gap points to a broader issue in the allocation practices of numbering resources by

TSPs. The core of the problem lies in the lack of well-defined guidelines governing the unregulated distribution of TI resources, particularly for Session Initiation Protocol (SIP) trunks and Primary Rate Interface (PRI) customers. As a result, there has been an over-allocation of numbering resources. However, it is crucial to recognise that these resources are not infinite, and unregulated allocation without proper checks may create a scarcity in the near future.

2.4.2 Moreover, there is rising concern surrounding the potential misuse of these numbering resources, particularly about Unsolicited Commercial Communication (UCC). Without proper oversight, TSPs may inadvertently contribute to the abuse of these resources for spam or unsolicited marketing communications, further amplifying the urgency of this issue. These findings underscore the pressing need for a structured framework that regulates the allocation of numbering resources to avoid wastage and misuse.

2.5 In this regard, stakeholders were requested by the Authority to provide their comments on the following issues related to fixed-line services, along with justifications: -

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.

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.

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.

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

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.

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?

Comments of stakeholders on the Q1 to Q6

2.6 A majority of stakeholders have raised concerns stating that the current process for allocating TI resources is excessively rigid, time-consuming, and inefficient. This inefficiency often leads to a scenario where a Telecom Service Provider (TSP) is left with surplus resources in areas of low demand while facing shortages or constraints in high-demand regions. One stakeholder suggested that the criteria for allocating fixed-line numbering resources should take into account factors such as city classification, population size, and current utilization levels. However, a few stakeholders expressed the view that there is no need to revise the existing criteria for fixed-line TI allocation.

2.7 Several stakeholders stated that the current SDCA-based fixed-line Telecom Identifier scheme could lead to future shortages of TI resources. A majority of these stakeholders recommended discontinuing the

existing SDCA code-based numbering system and transitioning to a more practical 10-digit numbering scheme. A few stakeholders submitted that the current SDCA-based fixed-line Telecom Identifier (TI) scheme is the root cause of TI resource shortages, as it is outdated from the era when call routing relied on Local Exchanges (LEs) as key switching hubs. With the shift from traditional TDM-based circuit-switched networks to IP-based packet-switched networks, this diversity in switching is no longer necessary. A single soft switch can now replace multiple TDM switches and serve one or more LSAs, making the old system redundant. Additionally, some stakeholders proposed aligning the allocation of TI resources for fixed-line services with the approach used for mobile services.

2.8 One stakeholder suggested that both the proposed solutions—utilizing spare SDCA codes and unused sub-levels respectively, would maintain customer convenience since the dialling pattern would remain unchanged. However, the number of freed resources would be limited. Another stakeholder advocated for this approach to be a Short-Term Solution, which should only involve the use of unutilized SDCA codes within the same LDCA to avoid technical complexities and routing issues. A few stakeholders, however, did not support any option other than LSA-based allocation.

2.9 Several stakeholders believe that migrating to an LDCA-based numbering scheme is not a viable long-term solution and would only serve as a temporary measure, failing to address the impending numbering shortage adequately. While this approach will not resolve the limitations in SDCAs that also serve as LDCAs, such as Gurugram (124) and Ghaziabad (120), implementing LDCA-based routing would require numerous adjustments, including changes to dialling patterns, modifications at the switching level, and revisions to emergency call handling procedures. Another stakeholder advised against this scheme due to potential customer dissatisfaction and its associated

complexities, arguing that it may not effectively address the inherent limitations of the SDCA-based fixed-line telecom infrastructure.

2.10 The majority of stakeholders opined for transitioning fixed-line Telecom Identifiers (TIs) to a 10-digit closed numbering scheme. They further stated that this approach offers several advantages, including greater uniformity and simplicity, more efficient use of numbering resources, alignment with technological advancements, ease of management, regulation, and adherence to global best practices. The proposed scheme aims to address both SDCA and LDCA constraints concurrently. The different options suggested by stakeholders to implement a10-digit closed numbering scheme are as below: -

(i) A few stakeholders suggest maintaining the status quo on the current Subscriber Number (SN) and SDCA codes for existing connections while introducing an LSA-based numbering series for new connections. Existing numbers would transition to a 10-digit format by combining the SDCA code with the Subscriber Number (SN) and requiring a "0" prefix for dialling. The new fixed-line scheme mandates dialling '**0 + SDCA code + SN**' for all calls, even within the same SDCA or LSA. This shift creates a larger numbering pool by aggregating SDCA codes at the LSA level, unlocking blocked codes, and enhancing system capacity and efficiency. Additionally, stakeholders propose routing all fixed-line emergency calls to the Emergency Response Support System (ERSS), regardless of the numbering scheme.

(ii) One of the stakeholders proposed a 10-digit Unified Numbering Scheme to optimize the existing numbering system by merging fixed-line numbers with STD/ SDCA codes. To facilitate this transition, introducing a four-digit Fixed-line Routing Number (FLRN) has been suggested. The FLRN will not be part of the dialling number but will automatically get prefixed in the

background to all current fixed-line numbers (by the switch) to achieve seamless call routing.

(iii) Another stakeholder proposed a circle or LSA-based system with SDCA-based call routing using 2-digit access codes and 8-digit subscriber numbers to create a unified 10-digit numbering scheme for fixed-lines, similar to mobile numbers. Using the same 10-digit scheme for fixed-lines would allow the current Mobile Number Portability (MNP) infrastructure to apply to fixed operators, enabling fixed subscribers to benefit from MNP without significant changes to the MNPSP or current porting processes.

(iv) Another stakeholder suggested that new fixed-line numbers should be provisioned using a scheme similar to Mobile Numbers (MSC Codes). They proposed considering a transition to a scheme, where MSC Codes and a National Location Routing Number (LRN) are allocated to each operator. This approach claimed to enable a faster and more cost-effective roll-out of services by new telecom operators, eliminating the need for LDCA or LSA/circle-based allocation.

2.11 Another stakeholder proposed changing the numbering scheme by adopting an 11-digit common system for both mobile and fixed-line numbers. However, other stakeholders highlighted that transitioning from SDCA codes to LSA codes will have significant complexity and potential disruption, necessitating extensive modifications to network routing designs nationwide and resulting in changes to the subscriber numbers of existing customers.

2.12 Furthermore, a stakeholder recommended implementing number portability for fixed-line services, aligning with current mobile number portability practices, as the lack of a porting facility for fixed lines has limited growth in the enterprise sector and has led to monopolistic practices, restricting customer flexibility to switch service providers

while retaining the same number. Also, one of the submissions brought out that the DoT should be the sole custodian of MSISDNs, which are public property and should directly lease MSISDNs to consumers (individuals or businesses) with terms and conditions of allocation and de-allocation determined solely by the DoT.

2.13 One of the stakeholders highlighted several hardships due to numerous changes and new dialing pattern requirements. Landline users, especially those who are elderly or illiterate, rely on basic phones without contact storage, making it difficult to remember and correctly dial 10-digit numbers. Additionally, users face challenges due to the new '0' prefix requirement, which necessitates enabling STD for calls to mobile and adjacent SDCA numbers, increasing costs, and risks of misuse (such as unauthorized long-distance calls).

2.14 Most stakeholders asserted that the bulk allocation of Telecommunication Identifier (TI) resources for SIP and PRI-based services is unlikely to result in a shortage in the foreseeable future. They foresee no immediate scarcity of TI resources and argue that no additional regulatory measures are necessary. These stakeholders emphasised the growing demand for SIP and PRI services within enterprise markets. They advocated for allowing TSPs the autonomy to optimise TI resource allocation in alignment with market trends and operational needs.

2.15 A subset of stakeholders further contended that the perceived scarcity of resources is not attributable to TSP allocations for enterprise clients but instead to the inefficient practice of assigning fixed-line series at the SDCA level. They also perceived that introducing the *'160 number series*' for transactional and service-related calls would effectively mitigate potential shortages in the future. Additionally, one stakeholder raised concerns regarding the misuse of Direct Inward Dialling (DID) numbers for telemarketing purposes, recommending that this issue be closely monitored. Another stakeholder suggested that TI resources should be

allocated based on inspections and recommendations from concerned LSA-field units of the DoT to ensure more efficient utilization.

Analysis of the issues raised through the Q1 to Q5

2.16 The Authority has noted that adequate numbering resources for fixed-lines are available in the SDCAs if the TI resources of all the TSPs are considered cumulatively; however, individually, the TSPs are facing shortages.

2.17 DoT, vide its OM No. 16-03/2018-AS-III/MSC dated 08 August 2022[1], issued an amended criterion for the allocation of additional wireline resources as brought out in table 2.1 below: -

Table 2.1: Fixed-line Resources Allocation Criterion by DoT

Sr No	Wireline Numbering Resource Allotted	Minimum subscriber activation required for seeking additional numbering resources
1.	10,000 to less than 50,000	50%
2.	50,000 to less than 1,00,000	55%
3.	1,00,000 to less than 5,00,000	60%
4.	5,00,000 to less than 10,00,000	70%
5.	10,00,000 and above	80%

2.18 The allocation of additional sub-levels for fixed-line services is contingent upon utilising previously assigned sub-levels. However, the current utilisation threshold appears overly lenient. For instance, a TSP

[1] https://dot.gov.in/sites/default/files/criterian%20for%20allotment%20of%20wire%20line.pdf?download=1

can request additional resources after crossing the threshold of 300,000 allocated fixed-line numbers, even if it already holds 200,000 unused TI resources. There may be various reasons behind such requests for additional resources. The entire process is multi-staged and time-consuming. Initially, the Access Service Provider submits a utilisation report in the prescribed format to the Local Service Area (LSA) field unit and obtains a certification from the respective Department of Telecommunications (DoT) LSA unit. The requisition is then forwarded to the DoT Headquarters (HQ). Based on the allocation criteria, DoT allocates additional sub-levels. Implementing a faster allocation process with smaller batch sizes could enhance resource utilisation efficiency.

2.19 In light of the above deliberations, **the Authority is of the view that there is a necessity to institute revised criteria for the efficient allocation of fixed-line TIs. While allocating TI resources, smaller ranges for allocation may be introduced. Further, allocation requests subsequent to initial allocation should be restricted to approximately 50% or less, of the initial allocation.**

2.20 The DoT currently allocates SDCA-specific sub-levels for fixed-line services to TSPs. These allocations span Level 2, Level 4, and various sub-levels of Levels 3, 5, 6, and 7. **Annexure II** provides a comprehensive overview of these allocations, including the respective TSPs, their operational areas, and subscriber base data. An analysis of SDCA-wise data, as submitted by stakeholders and provided by DoT, indicates generally low utilization of TI resources across all TSPs in most SDCAs. Higher utilisation levels are observed in only 12 SDCAs, and that too for only 3 TSPs. A detailed review further revealed that a substantial number of spare sub-levels are available for allocation to TSPs. The availability of these spare sub-levels, along with the corresponding TI resources, is illustrated in **Annexure III**. This analysis confirms that a significant number of TIs can be generated from the

spare sub-levels to meet future requirements, including the 12 SDCAs where higher utilisation is currently observed.

2.21 Upon reviewing the allocation/utilisation report of TI in a few SDCAs (Gurgaon and Ghaziabad) for the lower order sub-levels of the level allocated to one of the TSPs, it has been observed that a significant number of sub-levels of the level are not allocated to any subscribers i.e. many sub-levels are not opened for allocation to any subscribers. There are around 5,00,000 and 4,50,000 TIs available against the unutilized lower-order sub-levels in Gurgaon and Ghaziabad SDCA, respectively, as detailed in **Annexure-IV.** These TIs remain unused in contiguous blocks, making these resources suitable for withdrawal and reallocation to other TSPs. The continuity of these blocks makes withdrawal feasible. Also, the sub-levels allocated to TSPs that are still not utilised may be withdrawn. In this regard, DoT[2] has recently started withdrawing such sub-levels (letter dated 09.07.2024) and is allocating these sub-levels (letter dated 10.07.2024 and 23.09.2024) to other TSPs (**annexed as Annexure-V**).

2.22 **The Authority is of the view that to address TI resource constraints in the short term, the DoT as per the extant allocation mechanism should:**

(a) continue allocating SDCA-specific spare sub-levels to TSPs.

(b) withdraw unutilized sub-levels from TSPs and re-allocate them to other TSPs within the same SDCA.

[2] https://dot.gov.in/access-services/allotment-msc-codes?page=1

Long-Term Measures – Migration to LSA-based 10-digit closed numbering scheme for fixed-line services.

2.23 While the above-stated short-term measure of utilising available spare sub-levels effectively addresses immediate constraints in TI resources, its sustainability may be limited, particularly in certain SDCAs that could experience significant future demand. To ensure a sustainable long-term solution, it is proposed to migrate to a '*10-digit closed numbering scheme'* for fixed-line services. Under the proposed scheme, all fixed-line calls, i.e. local (within the SDCA), intra-circle, and inter-circle (LSA), would require dialling with a zero (0) prefix. The dialling pattern would be standardised as shown below:

'0' + SDCA code + Subscriber Number (SN)

This approach ensures minimal disruption as the 10-digit dialling code will be created by prefixing existing SDCA code to their existing subscriber number, thus preserving continuity for current users. The allocation would directly adopt the 10-digit format for new fixed-line users, enabling a seamless transition to a sustainable and future-ready numbering scheme. The only adjustment required for users would be to get accustomed to dialling 10 digits instead of erstwhile 6/ 7/8 digit dialling for intra-SDCA fixed-line to fixed-line calls.

2.24 Under this approach, the fixed-line codes generated utilising SDCA (i.e., SDCA codes + Sub-levels allocated to TSPs) will be available with the TSPs for allocation of TIs generated within the '*entire LSA'* instead of the presently followed mechanism where the use of such sub-levels is limited only to that SDCA. Thus, the 10-digit TIs generated will be available for allocating to subscribers/ customers throughout the entire LSA rather than being used only within a specific SDCA. The same is illustrated for one of the TSPs for UP (West) and Haryana LSA in **Annexure-VI**.

2.25 In addition to the above, post-implementation of a 10-digit closed numbering scheme for fixed-line services, the available spare sub-levels and unutilized sub-levels can be used for creating the new fixed-line codes for allocation to TSPs. The methods for creating new codes to generate TI resources is by suffixing (i) *Spare sub-levels* and (ii) *Unutilized Sub-levels* with the SDCA codes as explained in sub-paragraphs below:

i. **Using Spare Sub-levels**: The unused/ spare sub-levels within the SDCAs will be utilised to generate new codes by appending them to the existing SDCA codes. For example, in the Haryana Licensed Service Area (LSA), which includes 52 SDCAs, the spare sub-levels (e.g., 30, 32, 33, etc) can be utilised by appending them to SDCA codes (i.e. 171, 129. 124, etc) to create new fixed-line codes such as 17130, 17132, 12930, 12932, 12933, 12430, 12432, 12433 and others (as illustrated in detail at **Annexure-VII**)**.** In total, 28.62 million additional new TI resources will be generated by utilising the spare sub-levels within the Haryana LSA.

ii. **Using withdrawn unutilised Sub-levels**: Most Access Service Providers offering fixed-line services do not operate across all SDCAs within an LSA. Table 2.2 below illustrates the number of SDCAs in which different telecom service providers were delivering fixed-line services as of December 31, 2022[3].

Table 2.2: TSP-wise number of SDCAs where the TSP is providing wireline access services

Total No. of SDCAs in the country	TSP-wise number of SDCAs where the TSP is providing wireline access services									
	TSP-1	TSP-2	TSP-3	TSP-4	TSP-5	TSP-6	TSP-7	TSP-8	TSP-9	TSP-10
2645	2564	957	955	932	210	151	82	52	02	02

[3] Source: Information provided by the DoT

2.26 As a result, numerous unutilised sub-levels can be reclaimed to establish new **LSA-based fixed-line codes**, facilitating the generation of additional TI resources under the proposed 10-digit numbering scheme. These withdrawn sub-level suffixes from SDCA codes can subsequently be repurposed for TI resource allocation within the corresponding LSA. TSPs whose unused codes are withdrawn can still utilise existing TI resources from other SDCAs to accommodate future users, should they commence services in those specific SDCAs. For better understanding, **Annexure-VIII** illustrates the fixed-line codes generated by withdrawing sub-levels with zero utilisation in SDCA and provides the corresponding TI resources generated for each SDCA within the Maharashtra LSA.

2.27 To effectively mitigate TI resource constraints in the long run for fixed-line services with minimal disruption**, the Authority recommends the following: -**

(i) Migration from the existing SDCA-based numbering scheme to an LSA-based 10-digit closed numbering scheme for fixed-line services.

(ii) The following should be adapted to implement the LSA-based 10-digit closed numbering scheme for fixed-line service:

a. Dial all fixed-line to fixed-line calls using a prefix of '0', followed by the SDCA code and the subscriber number.

b. Even local calls within the same SDCA are to be dialled using a prefix of '0', followed by the SDCA code and the subscriber number.

c. The dialling pattern for fixed-to-mobile, mobile-to-fixed, and mobile-to-mobile calls will remain unchanged.

d. DoT may allow a period of six months to TSPs to implement the new numbering scheme.

e. Following the implementation of the 10-digit closed numbering scheme, appropriate announcements should be

programmed into fixed-line switches to inform subscribers about the revised dialling pattern for fixed-to-fixed calls. This will ensure that users are adequately apprised of the changes and can seamlessly adapt to the modified dialling pattern.

(iii) TI resources generated using SDCA codes with suffix sub-level(s) allocated to TSPs be used across the entire LSA rather than confined to specific SDCAs after migration to the LSA-based 10-digit closed numbering scheme.

(iv) The additional new fixed-line codes for allocation to TSPs can be created by the following methods: -

a. <u>Using Spare Sub-levels</u>: Spare sub-levels in the SDCAs of an LSA should be suffixed after respective SDCA codes to generate new fixed line codes (i.e. SDCA Code + spare sub-levels). The newly generated fixed-line codes will be available for allocation to any TSP for utilisation within the LSA.

b. <u>Using Unutilized Sub-Levels</u>: The sub-levels assigned to a TSP but remaining unutilised within any SDCA (of an LSA) can be withdrawn. The newly generated fixed-line codes (SDCA Code + withdrawn sub-levels) can be allocated to needy TSPs for provisioning of fixed-line services within LSA.

2.28 TRAI had issued *The Telecommunication Interconnection (Second Amendment) Regulations, 2020* on 10th July 2020[4], which defines the level of interconnection for PSTN-to-PSTN connectivity as follows:

(a) *Within a service area, the location of Point of Interconnect (POI), for calls between PSTN and PSTN or between PSTN and NLD network,*

[4] https://www.trai.gov.in/sites/default/files/2024-09/Regulation_10072020_0.pdf

shall be at such place as may be mutually agreed between the interconnection provider and the interconnection seeker.

(b) In case the interconnection provider and the interconnection seeker fail to agree under sub-regulation (1), the location of POI, for calls between PSTN and PSTN or between PSTN and NLD network, shall be at LDCC.

Provided that carriage charge for carriage of calls from LDCC to SDCC and vice versa, as applicable, shall be paid by the interconnection seeker to the interconnection provider:

Provided further that the existing POIs at the SDCC level, for calls between PSTN and PSTN or between PSTN and NLD network, shall remain in operation for a period of at least five years or till such time the interconnected service providers mutually decide to close such POIs, whichever is earlier:

2.29 According to the aforementioned TRAI regulation, the shift from SDCA to LDCA-level interconnection (*in case the interconnection provider and interconnection seeker fail to agree for location of POI*) is inevitably scheduled to occur by 10th July 2025. With the advent of modern technology, most TSPs have transitioned their fixed wireline service switching capabilities from the SDCA level to the LSA level. Both technological advancements and the evolving regulatory framework envision the management of PSTN traffic at a more centralised level.

2.30 10-digit closed numbering scheme may require establishing the Point of Interconnection (PoI) between TSPs for fixed-line services at the Licensed Service Area (LSA) level. The shifting of the inter-TSP PoIs at LSA level, fixed-line would require substantial changes to the network routing design across all network nodes in India. Consequently, the Authority opines that the extant Telecommunication Interconnection Regulations (Second Amendment) 2020 (TIRs) governing PoIs need to be reviewed for

shifting inter-TSP PoIs at the LSA level instead of the LDCA level to facilitate a smooth transition.

2.31 Further, in the IP-native architecture of modern telecom networks, IP-based interconnections provide an optimal solution for managing voice traffic; however, many interconnections among major Telecom Service Providers (TSPs) remain tethered to outdated TDM protocols. This reliance on TDM for intra as well as inter-TSP connectivity requires IP-to-TDM conversions, introduces latency and hinders higher QoS for voice traffic. Although there has been progress in implementing intra-TSP IP-based PoIs within the networks, the absence of widespread IP interconnections across networks is apparent. This situation indicates a pressing need for harmonised, fully IP-based interconnectivity, preferably at the LSA level, across telecom networks, to ensure consistent voice quality, free from the drawbacks of protocol conversions. In view of the aforementioned, the Authority opines that to establish universal IP-based Points of Interconnection (PoI) at the LSA level among TSPs to phase out TDM-based PoIs (both at intra and inter-TSP level), the extant Telecommunication Interconnection Regulations (TIRs) governing PoIs and Port Charges (including subsequent amendments), needs to be reviewed through a separate consultation.

2.32 Mitigation measures recommended under para 2.25 should be able to address TI requirements in the foreseeable future. However, if the need arises due to unprecedented growth in fixed-lines, Fixed-line Location Routing numbers (FLRN) may be introduced over the LSA-based 10-digit closed numbering scheme akin to Mobile LRN. In this scenario, each operating TSP within each LSA will be assigned a unique 4-digit FLRN code. All assigned fixed-line numbers will be associated with the FLRN code. Routing decisions for all fixed-line calls will be based on the FLRN code associated with each subscriber number. Migration from LSA-based 10-digit numbering scheme to an FLRN-based 10-digit fixed-line

numbering framework will result in nationwide unrestricted availability of LSA-based TI resources. Furthermore, the FLRN code-based fixed-line numbering scheme incidentally lays the foundation for fixed-line number portability similar to Mobile Number Portability (MNP). However, LSA-level POI is a prerequisite for the FLRN-based numbering scheme.

2.33 In view of the above, **the Authority recommends that a 10-digit fixed-line numbering scheme using a Fixed-line Location Routing Number (FLRN) code should be adopted, after the successful implementation of the LSA-based 10-digit closed numbering scheme, at the earliest preferably within a maximum period of five years.**

Analysis of the issues raised through the Q6 - *TI Resources Through SIP & PRI Connections*

2.34 It's crucial to remember that TI resources are not unlimited. The lack of explicit guidelines for allocating TI resources by TSPs to SIP trunks and PRI customers has resulted in a notable trend where certain TSPs assign substantial TI resources to enterprise clientele. The number of SIP customers (retail and enterprise), along with the TIs for fixed-lines allotted against the SIP customers by the TSPs, are shown in the **ANNEXURE- IX**. It may be noted that for many SIP enterprise customers, TI resources allotted per Mbps are on the much higher side, and similar is the case for many PRI enterprise customers. This practice has the potential to exhaust the availability of TI resources. Therefore, the unrestrained allocation of TIs by the TSPs without adequate checks and balances poses a tangible risk of creating a scarcity of TI resources. Further, a critical concern is the potential misuse of unrestrained TIs availability, resulting in enhanced Unsolicited Commercial Communication (UCC).

2.35 The Authority recognises the concerns raised regarding the inefficient utilisation of TI resources, particularly in SIP and PRI services, due to the absence of clear guidelines or standardised definitions. This lack of clarity contributes to inefficient resource management. There is a need to regulate the allocation of TI resources to SIP/PRI, implement monitoring practices to avert the depletion of TI resources, and check the misuse of the TI resources for UCC. One possible step is to define the guideline for allocating TI resources with SIP trunk and PRI connections. It may be noted again that each PRI has 30 channels for a 2 Mbps PRI line, i.e. 15 TIs per Mbps. The amount of bandwidth required for each SIP call depends on the codec/compression technique (G.711, G.729, etc.), Packet size for voice (20ms or 30ms of speech), header compression, and layer 2 protocol. However, the bandwidth consumption for G.729 voice codec will consume 32 kbps while G.711 will consume 87 kbps per SIP call. Hence, the Authority is of the view that DoT field units monitor the allocation of TIs beyond 15 TIs per Mbps for SIP and PRI connections. TSP must submit such cases to DoT field units before allocating TIs to private enterprise entities seeking TIs beyond 15 TIs/ Mbps. Further, the TSP must submit the voice traffic (outgoing or incoming) report to the DoT field units for further examination for any misuse of TIs for UCC.

2.36 In India, the mobile/ landline numbers are displayed as Calling Line Identification (CLI) during incoming calls. However, a calling party can spoof its number. CLI spoofing is when a caller deliberately falsifies its CLI to disguise its identity; this technique tricks the called party into answering a call. Scammers often spoof a trusted company or a government agency number (that a called party may already know and trust) to defraud the called party. Further, certain entities indulge in unsolicited Commercial Communication (UCC) and spam, annoying customers.

2.37 To mitigate the menace of call spoofing and spam, TRAI recommended the 'Introduction of Calling Name Presentation (CNAP) Service in Indian Telecommunication Network'. The recommendation dated 23.02.2024 include: -

- Calling Name Presentation (CNAP) Supplementary Service should be introduced in the Indian telecommunication network.
- All access service providers should provide Calling Name Presentation (CNAP) supplementary service to their telephone subscribers upon request.
- Subscribing entities holding bulk connections and business connections should be able to present their 'preferred name' in place of the name appearing in the CAF.
- The 'preferred name' could be the 'trademark name' registered with the Ministry of Corporate Affairs, or the 'trade name' registered with the GST Council, or any other such unique name duly registered with the Government, provided that the subscriber entity present the necessary documents to prove the ownership of such name.
- DoT should formulate guidelines for documents to be provided by subscribing entities holding bulk and business connections for registering their 'preferred name' with the access service providers. DoT should also stipulate necessary guidelines to prevent any misuse of this facility.

The introduction of the CNAP facility in telecommunication networks would empower subscribers to make an informed decision while receiving an incoming call and reduce the harassment of subscribers from unknown/ spam callers. Hence, the Authority is of the view that CNAP supplementary service for all SIP and PRI calls terminating on Mobile Networks should be implemented at the earliest to inhibit UCC and spam calls.

2.38 Furthermore, the Authority is also of the view that critical vulnerabilities exist in today's increasingly open telecommunication networks, where signalling mechanisms used for control and management are susceptible to exploitation. The current Network-Network Interface (NNI) between TSPs relies on an assumption of trust grounded in commercial agreements rather than rigorous technology-based security measures. This assumed trust, coupled with the proliferation of new interfaces such as *SIP trunks for non-TSP entities, third-party SMS gateways, and open 5G architecture*, creates significant security gaps. These gaps can be manipulated for malicious activities, including CLI spoofing, IMSI theft, and unauthorised surveillance, posing serious challenges not only to the integrity of network communications but also to the safety of sensitive user information. The potential for AI-enhanced threats, such as voice cloning combined with CLI manipulation, further complicates the landscape, stressing the urgency for robust countermeasures. Therefore, the Authority is of the opinion for the transition towards a more secure and trusted framework, drawing on successful models from internet security, such as the X.509-based Public Key Infrastructure (PKI) framework or the adoption of ITU-T standards (specifically Q.3057 (04/2020) and Q.3062 (09/2022)), which propose a robust, certificate-based authentication system to mitigate signalling abuse. A national Certification Authority (CA) or multiple CAs can achieve higher signalling security of telecommunications infrastructure.

2.39 **In view of the above, the Authority recommends the following: -**

(a) DoT should formulate guidelines for allocating TI resources with SIP trunk and PRI connections to Enterprise Entities.

(b) DoT field units should monitor the allocation of TIs beyond 15 TIs per Mbps for SIP and PRI connections.

(c) The TSPs submit the voice traffic (outgoing or incoming) report of SIP and PRI to the DoT field units for further examination for any misuse of TIs for UCC.

(d) The Authority reiterates its recommendations on '*Introduction of Calling Name Presentation (CNAP) Service in Indian Telecommunication Network*' dated 23.02.2024 to be implemented by the DoT at the earliest. Further, CNAP supplementary service for all SIP and PRI calls terminating on Mobile Networks should be expeditiously implemented to inhibit UCC and spam calls.

(e) TSPs must implement the CLI authentication framework (in consonance with ITU-T Q.3057 (04/2020) recommendation) to safeguard telecommunications signalling from abuse, including CLI spoofing and tampering while extending SIP/PRI trunks for non-TSP entities.

(f) DoT, in consonance with ITU-T Q.3062 (09/2022) recommendation framework, may establish a trust framework by authorising a centralised or distributed Certification Authority (CA) to authenticate and validate signalling messages between various network entities.

2.40 Deactivation and reuse of inactive TI resources

2.40.1 Telecom Consumer Protection (Sixth Amendment) Regulation (TCPR) (2 of 2013)[5] states that no prepaid consumer is deactivated for non-usage for a minimum period of 90 days or longer, where non-usage refers to the absence of activity. The activity means a voice call/video call/SMS/data session/value-added services/payment of rental in case

[5] https://www.trai.gov.in/sites/default/files/2024-10/Sixth_Amedment_21_FEB_2013.pdf

of post-paid connection/or any other usage, as may be specified by the service provider.

2.40.2 The DoT, through its letter 800-21/2015-AS-II dated 20th April 2017, forbids TSPs from reallocating deactivated cellular mobile numbers (whether deactivated due to non-usage or disconnection at the subscriber's request) for a minimum period of 90 days or such longer period as may be specified by the licensee over and above the extant 90 days period as specified in TRAI's TCPR Sixth Amendment of 2013), giving TSPs the ability to retain ownership of deactivated numbering resources for 180 days or more.

2.40.3 This mechanism, while it appears to be functioning for mobile numbers, lacks similar guidelines for fixed-line connections. The absence of a clear framework for deactivation and subsequent reallocation of fixed-line numbers has led to inefficient recycling practices. As a result, fixed-line numbering resources are not optimally utilised, creating artificial scarcity despite the availability of unused numbers. To address this inefficiency, one potential approach would be to revise or introduce explicit definitions of what constitutes an "*inactive connection*" for both fixed-line and cellular mobile services. Clear definitions would streamline the process of reusing TI resources, ensuring that numbering resources are effectively recycled across all services. Setting a standard for when and how numbers can be deactivated and reused could prevent unnecessary allocation requests, improve resource management, and optimise the availability of numbering resources for future demands.

2.41 **Allocation of TI resources on a chargeable basis**

2.41.1 The Telecommunications Act 2023 has the following provision related to the charging of telecom identifiers:

"The Central Government may, subject to such terms and conditions, including fees or charges as may be prescribed, allot telecommunication identifiers for use by authorised entities."

2.41.2 Currently, TI resources for mobile and fixed-line services are allocated to service providers free of charge. The ownership of numbering resources resides with the government, and it is evident that these numbers hold immense value as a public asset. Presently, service providers are not obligated to remunerate DoT for the numbering resources allocated to them. It is apparent that many service providers capitalise on the market demand by offering vanity numbers or highly coveted numbers at premium rates and even resort to conducting auctions to maximise their revenue from such number allocations. Introducing charges towards allocation of TI resources for mobile and fixed-line to TSPs might entail certain downsides. One major disadvantage is that the TSPs will likely pass the charges on to customers.

2.41.3 The allocation of numbering resources in some countries worldwide is chargeable, covering various categories such as mobile numbering resources, vanity numbers, and numbers for emergency and essential services. Based on the information available in the public domain for various countries, the details of the method adopted for charging the TI resources in various countries, including the above, are summarised in **Annexure X**.

2.42 In this regard, the Authority requested the stakeholders to provide their comments on the following issues, along with justifications:

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.

Q8. (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?

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

Comments of stakeholders on the Q7

2.43 Many stakeholders have asserted that defining "*inactive connection*" for fixed-line services is unnecessary, as fixed-line services' usage patterns and dynamics differ significantly from those of mobile services. They stated that introducing such a definition would not offer any added value. Additionally, these stakeholders see no need to revisit the existing definition of "inactive connection" for mobile services. They believe that decisions regarding the deactivation and reallocation of connections should remain at the discretion of TSPs, allowing them the flexibility to manage their networks and resources. According to these stakeholders, prescribing a specific timeline for the permanent disconnection of mobile numbers is unwarranted, as current practices are consumer-friendly, do not contribute to a shortage of mobile numbering resources, and cause no financial loss to the government.

2.44 Conversely, some stakeholders have argued favourably for the necessity of defining "*inactive connection*" for fixed-line services. One stakeholder noted that inactive mobile numbers are reallocated after six months of non-usage and suggested that this period be shortened. They proposed that mobile or fixed-line numbers deactivated due to '*non-usage'* should be eligible for reallocation after 90 days of inactivity at the service provider's discretion. They further recommend that the additional "*cooling-off*" period of 90 days, as specified by DoT's 2017 guidelines, should apply only to numbers deactivated for reasons other than non-usage.

2.45 A few stakeholders also advocated distinguishing between two user categories: (1) retail users and (2) bulk or enterprise users. They proposed defining "*inactive connection*" for retail users as a fixed-line connection that has been unused for any voice calls, data transmission, or other services for 90 days, while the inactivity period for enterprise users should be set at 180 days.

Comments of stakeholders on the Q8

2.46 The majority of stakeholders argued against imposing charges or financial disincentives on existing and newly allocated telecommunication identifier (TI) resources. They emphasised that TSPs already contribute through payment of license fees and Spectrum Usage Charges based on their Adjusted Gross Revenue (AGR), which also includes the revenue from the sale of vanity numbers. Additionally, numbering series have been allocated as part of the licensing agreement. Imposing charges on these existing series would represent a retrospective change in the contractual agreement between the government and TSPs, which they claim is unfair and legally untenable. Furthermore, additional charges could create an entry barrier for smaller operators, limiting their ability to serve niche markets. TSPs further stated that any additional charges on numbering resources

would further increase the financial burden on TSPs, which would likely be passed on to consumers, ultimately making services more expensive.

2.47 Most stakeholders also opposed imposing financial disincentives on TSPs to retain a percentage of unutilised allocated TI resources beyond a specific timeframe, as this could lead to increased tariffs to offset the penalties. They suggested that the existing practice of withdrawing unutilised levels after 12 months is sufficient as a deterrent, making further financial disincentives unnecessary.

2.48 A few stakeholders proposed that TSPs holding excess TI resources should be charged at their lowest published tariff plan to discourage TI resource hoarding. They also suggested limiting free mobile numbers per individual (e.g., one or two) to address this issue, with additional numbers incurring charges.

Comments of stakeholders on the Q9

2.49 One of the stakeholders suggested that the criterion for mandating the surrender of numbering resources should be zero utilisation. They pointed out the complications of managing partially utilised numbering series, as it is very rare for the full range of numbers (e.g., 0000-9999) to be available due to random disconnections of existing subscribers. Since contiguous number ranges can only be reallocated within the same SDCA, surrendering and reallocating such ranges would not resolve the numbering constraints in highly utilised SDCAs. This process would instead create significant technical, operational, and efficiency challenges.

2.50 Another stakeholder proposed implementing a monitoring mechanism where TRAI/ DoT may regularly assess the utilisation patterns of numbering resources allocated to TSPs, both for mobile and fixed-line services. Based on this, up to 70-80% of unutilised resources could be withdrawn after a set period. They suggested that if unutilised resources

account for 30-40% of a TSP's total allocation, these resources should be subject to withdrawal after 12 months, applying a similar approach for other cases. This method aims to ensure better management and reallocation of numbering resources.

Analysis of the issues raised through the Q7-Q9

(a) Definition of an Active Connection for Fixed-line Services.

2.51 The Authority acknowledges the fact that the absence of well-defined guidelines for the usage and deactivation of fixed-line numbering resources has resulted in suboptimal recycling and allocation of these resources. It is of the view that, similar to the provisions outlined for mobile services under the "Telecom Consumer Protection (Sixth Amendment) Regulation, 2013 (TCPR 2 of 2013)"[6], clear and comprehensive guidelines should be established for fixed-line services.

2.52 These guidelines should clearly define the terms '*activity*', *'non-usage*', 'deactivation' and 'cooling-off period', ensuring consistency with definitions for cellular mobile connections. Such measures would streamline the management of numbering resources, allowing for their effective reuse while promoting operational efficiency across telecommunications services.

2.53 In view of the above-stated facts, arguments, and analysis, **the Authority recommends the following definition for the term '*activity*' and '*non-usage*' in the context of fixed-line services:**

(i) 'activity' means any outgoing or incoming telecommunication (voice and/or data), broadband/ internet services, value-added services (such as conference calling, call forwarding, voicemail, etc), other services (such as FAX, SIP trunking, PRI-based services, etc), or payment of rental

[6] https://www.trai.gov.in/sites/default/files/2024-10/Sixth_Amedment_21_FEB_2013.pdf

in case of postpaid fixed-line connection or any other usage as may be specified by the service provider.

(ii) 'Non-usage' means the absence of 'activity' as defined in Para 2.53 (i) above for a contiguous period of 90 days.

(b) Deactivation and reuse of inactive TIs

2.54 The DoT via its letter no. 800-21/2015-AS-II dated 13th and 20th April 2017[7], has stipulated that mobile numbers deactivated due to non-usage or disconnected at a subscriber's request must not be reassigned to another subscriber until a minimum period of 90 days has passed or for a longer duration as specified by the service provider. Additionally, TRAI's Telecom Consumer Protection Regulations (TCPR), 2013, mandate that prepaid mobile connections cannot be deactivated due to non-usage within the first 90 days, with an option for service providers to extend this period further. In view of the above and to protect the interests of the subscribers of mobile and fixed-line service, the Authority opines that the mobile and fixed-line connection inactive due to non-usage shall not be allocated to any other subscribers till the expiry of a minimum period of 90 days from the date of deactivation/ disconnection. Also, the mobile and fixed-line connections deactivated/ disconnected for reasons other than non-usage, such as surrender/ disconnection, shall not be allocated to any other subscribers till the expiry of a minimum period of 180 days from the date of deactivation/ disconnection.

2.55 The Authority further opines that such provisions (as made in above mentioned TCPR 2013 and DoT letter), while safeguarding consumer interests, have enabled TSPs to retain numbering resources indefinitely without reassigning them. This contributes to the inefficient use of numbering resources and may lead to shortages as demand for telecom

[7] https://dot.gov.in/sites/default/files/20.04.2017.PDF?downloa letterd=1

identifiers rises. Hence, the timeline for deactivation of mobile and fixed-line connections due to non-usage needs to be defined, and it cannot be left solely at the discretion of the TSPs. The Authority is of the view that the TIs that remain inactive due to the non-usage should be deactivated after 365 days.

2.56 Given the above-stated arguments, analysis of stakeholder comments, contemporary factual constraints, and drawing inferences from the Telecom Consumer Protection (Sixth Amendment) Regulation, 2013 (TCPR 2 of 2013) and DoT letter no. 800-21/2015-AS-II dated 20 April 2017 respectively, **the Authority recommends the following:**

(i) No mobile or fixed-line connections shall be deactivated by the TSPs until 90 days of the non-usage period expires.

(ii) All mobile and fixed-line connections that remain inactive due to non-usage shall be mandatorily deactivated by the TSPs after 365 days post-expiration of 90 days of the non-usage period.

(iii) No mobile or fixed-line connections deactivated due to non-usage shall be reused by the TSPs until the expiry of a minimum period of 90 days from the date of deactivation.

(iv) No mobile or fixed-line connections deactivated/ disconnected for reasons other than non-usage (such as surrender/ disconnection by the customer or TSP) shall be reused by the TSPs until the expiry of a minimum period of 180 days from the date of deactivation/ disconnection.

(c) Charging of TI and Surrender of Unutilized TI Resources (Mobile & Fixed-line Services)

2.57 At this juncture, it is inappropriate to impose charges on newly allocated TI resources or introduce financial disincentives. The suggested allocation criteria (refer para 2.16), to adopt a stringent and precise approach by distributing TI resources in smaller, more manageable

blocks, are expected to address the inefficiencies in resource utilisation. By ensuring that TSPs receive only the resources they genuinely require, this framework minimises wastage and enhances the overall efficiency in numbering resources. Consequently, additional financial penalties or disincentives are unnecessary, as the revised approach naturally promotes better resource management. **Hence, the Authority is of the view that there is no need to impose any additional charge or financial disincentive on TI resources at this stage.**

2.58 As discussed under Para 2.21, a significant number of sub-levels of the level (allocated to the TSP) are not opened for allocation to any subscribers by one of the TSPs (refer to **Annexure- IV)**. A similar should be the case for many other SDCAs and other TSPs. These unopened sub-levels of the levels and unutilised sub-levels having contiguous TI resources are suitable for withdrawal and reallocation to other TSPs. In this regard, DoT[8] has recently started withdrawing such sub-levels from the SDCAs and allocating them to other TSPs. The continuity of these blocks makes surrendering them feasible. However, if unutilised resources are scattered and not in contiguous blocks, surrendering them becomes impractical. For example, even a block of 100,000 TIs cannot be surrendered if it contains as few as 100 utilised numbers. **Considering the above, the Authority opines that DoT should closely monitor the annual usage of TI resources allocated to TSPs and if required, may withdraw unutilized TI resources.**

Machine-to-Machine (M2M) – 13-digit TIs

2.59 In India, the M2M TIs scheme is structured to accommodate the growing demand for connected devices. The DoT has implemented a 13-digit numbering format specifically for SIM-based M2M devices, which ensures a more extensive pool of unique identifiers compared to

[8] https://dot.gov.in/access-services/allotment-msc-codes?page=1

traditional 10-digit numbers. This 13-digit scheme is segmented into a 3-digit M2M identifier, a 4-digit licensee identifier, and a 6-digit device number. The DoT has released several 3-digit M2M identifier codes, such as 559, 575, 576, 579, and 597, with '575' currently being utilized. This system facilitates the efficient management and scaling of M2M communication, providing a structured framework that supports the increasing number of connected devices across various sectors. With the above-stated background, the Authority, through the Consultation Paper dated 06th June 2024 had solicited comments of stakeholders on the following question:

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.

Comments of stakeholders on the Q10

2.60 In response to **Q10**, the majority of stakeholders, including service providers and associations, affirm that there are no immediate constraints envisaged towards TI resources for M2M connectivity, with sufficient ranges available from the DoT to meet both current and future demands

2.61 One of the stakeholders further suggested that TSPs be allowed to utilise the M2M TIs allocated for one LSA (*with lower utilization*) to another LSA (*with higher utilization*) to optimize resource utilization. allowing flexibility for TSPs to reallocate unused M2M TIs from less utilized service areas to those with greater need, subject to DoT approval, to optimize resource utilization. Another stakeholder proposed that M2M communications with roaming and MNP provisions be introduced. It has been further proposed that legacy devices utilizing 10-digit M2M numbers be allowed with a phased transition to avoid customer inconvenience, as immediate migration may lead to service disruptions.

Analysis of the issues raised through Q10

2.62 The Authority has noted that most stakeholders, including service providers and industry associations, affirm that they foresee no immediate constraints regarding TI resources for M2M connectivity. They also affirm that the available resources, as allocated by the DoT, are sufficient to meet both current and future demands. Thus, **the Authority is of the view that no interventions are necessary for M2M TI resources.**

2.63 From the utility standpoint, M2M services are steadily expanding across various industries, and demand for connectivity varies significantly across geographic regions. Allowing roaming provisions for M2M devices would facilitate uninterrupted connectivity, particularly for IoT applications such as fleet management, logistics, and transportation, where devices move across different regions.

2.64 However, the provisioning of Mobile Number Portability (MNP) for M2M SIMs is not required at this time, owing to the following reasons. Firstly, MNP is primarily designed for consumer-centric cellular services where retaining a mobile number is critical to ensure personal and business communications continuity. However, in the case of M2M SIMs, the primary function is machine communication, not person-to-person communication, making number retention less relevant. Secondly, M2M devices are often deployed in fixed, long-term applications such as utilities, transportation, and industrial automation, where frequent changes of service providers are uncommon. In such scenarios, the need to port a number is significantly reduced as M2M SIMs are typically embedded, non-removable, and tied to long-term contracts. Hence, enabling MNP for these SIMs could introduce unnecessary complexity and technical challenges without substantial benefits. Furthermore, implementing MNP for M2M would require significant technical

modifications and investments from all segments including e-SIM manufacturers, OEM and Device manufacturers, telecom operators, and IoT ecosystem developers, which outweighs the actual utility of the feature. In light of these factors, the Authority concludes that MNP for M2M SIMs would offer limited value while introducing operational complexities and is therefore not recommended.

2.65 TRAI in its recommendation- '*Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services*' dated May 29, 2020, has recommended – "*all the SIM-based M2M connections using 10-digit mobile numbering series should be shifted to the 13-digit numbering series allocated by DoT for M2M communication; at the earliest*". As for devices utilizing 10-digit M2M numbers being allowed with a phased transition to avoid customer inconvenience. In this regard, the Authority is of the view that DoT may expeditiously implement the accepted recommendation of the aforementioned TRAI recommendations that all the SIM-based M2M connections using 10-digit mobile numbering series should be shifted to the 13-digit numbering series for M2M communication. In view of the above, **the Authority recommends that DoT should expeditiously implement the accepted recommendation of TRAI on - '*Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services*' dated May 29, 2020, stating that all the SIM-based M2M connections using 10-digit mobile numbering series should be shifted to the 13-digit numbering series for M2M communication at the earliest**.

Level '1' Short codes

2.66 Level 1 short codes in the Indian telecommunication landscape are crucial for immediate access to essential services and information. These 3 to 6-digit short codes facilitate connections to emergency services like police, fire, and medical assistance, enhancing emergency response effectiveness. They are also used in government services to

streamline public service delivery and in customer service for quick helpline access and efficient query resolution.

2.67 The activation of Level '1' short codes necessitates an open configuration across all Telecommunication Service Providers (TSPs) networks, with each TSP facilitating public access. The entire procedural sequence, commencing from an organization's initiation of a request to the eventual assignment of Level 1 short codes, is conducted offline and managed manually by the Department of Telecommunications (DoT). The existing protocol employed by DoT for allocating Level '1' short codes is tailored to designate these codes to Central/State Government Departments exclusively. This allocation is contingent upon the recommendations furnished by the Chief Secretary/Principal Secretary of the pertinent Department/Ministry within the State or Central Government.

2.68 Challenges in short code allocation arise from increased requests from both governmental and non-governmental entities, highlighting the need for a systematic allocation protocol. This surge necessitates an allocation protocol, especially for emergency services and public welfare. Additionally, the DoT has underscored the exigency for the effective use of TI resources for Level-1 services in the context of the country's requirements.

2.69 The allocation data for Level 1 codes, as requested by TRAI from DoT, reveals that 3-digit short codes are primarily designated for emergency and essential services, with an available pool of 100 possibilities and similarly, a pool of 1,000 possibilities for 4-digit codes. Approximately 13 three-digit codes (for instance, 100 for police, 101 for fire, 102 for ambulance, 112 for all types of emergencies) and around 109 four-digit codes have been allotted.

2.70 The allocation and utilization of short codes present several challenges that need to be addressed to optimize their effectiveness and ensure the efficient use of resources

- Short codes of 3 or 4 digits are easy to remember and dial, whereas 5- or 6-digit codes are more complex and less user-friendly. As a result, many longer-format short codes have become non-operational or have been replaced by free phone services. Toll-free numbers with simple patterns are preferred for ease of use.
- Analysis of short codes revealed that numerous institutions were earlier assigned short codes at both the Pan India and state levels, but a substantial proportion of these codes currently remain inactive, indicating inefficient utilization.

2.71 In a 10-digit numbering scheme, a 3-digit telecom identifier blocks almost 10 million resources. For instance, if 197 is allocated for a particular use, then numbers from 197-00-00000 to 197-99-99999 cannot be assigned elsewhere. The same applies to 4/5/6-digit telecom identifiers, which also block significant numbering resources. Therefore, it is imperative to explore the possibility of allocating short codes to organizations on a chargeable basis. These challenges highlight the need for specific practices to ensure the effective utilization of premium Level 1 resources.

2.72 The DoT, in the reference, highlighted the need to analyse global best practices for the effective use TI resources for level '1' services. In the consultation paper, TRAI examined the process of short code allocation in various countries. In many countries, short codes are allocated on a chargeable basis to ensure efficient use of these resources. These countries were (a) Imposing a one-time charge for each short code allocated, (b) Imposing an annual recurring charge for each short code allocated, and (c) Imposing both a one-time charge and an annual recurring charge for each short code allocated.

2.73 In light of the above discussions, the stakeholders were requested to give their comments on the following issues with justification: -

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.

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)?

Comments of stakeholders on the Q11-Q12

2.74 The majority of stakeholders believe that Level-1 short codes should be reserved exclusively for government entities. Additionally, they assert that allocating these short codes on a chargeable basis would not address the issues identified. These codes are predominantly used for public welfare and emergency services, and charging for their allocation could impose financial barriers, particularly on government departments and non-profit organizations that provide essential services. Given the critical nature of these services for public safety and welfare, introducing fees could hinder access to the necessary numbering resources, potentially jeopardizing the effectiveness of emergency responses.

2.75 Furthermore, charging for Level-1 short codes may create an inequitable system where only well-funded entities can afford these codes, leaving smaller or financially constrained organizations, including many government departments, at a disadvantage. Implementing a chargeable

system would also require the creation of a complex mechanism to administer fees, which could increase the DoT's administrative overhead and divert resources from more critical regulatory functions. Therefore, it is more prudent to maintain the non-chargeable status of Level-1 short codes to ensure equitable access and the continued efficiency of emergency services.

2.76 However, one of the stakeholders submitted that allocating Level-1 short codes on a chargeable basis could generate revenue and help balance the demand against availability. Another stakeholder suggested that non-emergency or utility short code allocations, particularly for commercial operations such as Indian Railways, should be chargeable—either as a fixed or recurring fee based on projected call volumes.

2.77 One of the stakeholders highlighted concerns with the current procedure followed by the DoT for the allocation of Level-1 short codes, specifically pointing out that the approval process is bureaucratic and time-consuming. It further brought out that the absence of an automated system for processing applications, further delays the allocation process. Additionally, the cost associated with applying for and maintaining short codes can be prohibitive for some service providers. To address these issues, the stakeholder recommended that the DoT must publish clear, detailed guidelines and criteria for short code allocation to streamline the process and make it more efficient and accessible.

2.78 Most of the stakeholders are of the view that the allocation of short codes should be based on rational and transparent criteria, with a strong emphasis on monitoring their utilization. They believe that short codes should be assessed periodically to ensure compliance with intended usage. Regular audits could help identify codes that remain unused over a significant period, allowing for their surrender or reallocation. This

approach would prevent hoarding scarce resources and ensure that the codes are efficiently utilized by entities that truly need them.

2.79 Additionally, many stakeholders suggested that non-government helplines should be moved to the 1800-series toll-free numbers or shifted to digital solutions such as chat services. Moving non-essential helplines to these platforms would free up the Level-1 short codes for more critical uses, such as emergency services, and offer users more convenient and modern support options.

2.80 A few stakeholders also recommended that the short codes currently used by Telecom Service Providers (TSPs) for self-care services, as well as those allocated under the National Numbering Plan (NNP) for intra-network services, should continue to be available. One of the stakeholders further submitted that TSPs should be allowed the flexibility to determine the best routing and termination numbers for Level-1 short codes, except for emergency services. This would ensure that costs remain manageable for TSPs while optimizing the network efficiency for these services.

2.81 A few stakeholders submitted that while several global examples referenced in the consultation paper suggest charging for these codes, it is important to emphasize that codes used for public welfare and government emergency response services should continue to be offered free of charge, given their critical role in serving the public interest.

Analysis of issues raised through the Q11-Q12

2.82 As highlighted earlier regarding global best practices for short code allocation, it is observed that many countries allocate short codes on a chargeable basis. However, it is important to note that short codes are also allocated to private entities for commercial purposes in these countries. In contrast, in India, presently short codes are allocated exclusively to government entities to provide essential services to the

citizens. Furthermore, charging for short codes will not resolve the issue of inefficient utilization. Therefore, the authority believes that short codes should continue to be allocated *'free of charge'* to government entities. Short codes used internally by TSPs should continue to operate as they currently do.

2.83 To ensure the efficient utilization of short codes, it is important that these are periodically reviewed to verify that these are being used in accordance with their intended purpose. The authority believes that regular audits of short codes are necessary in this process. These audits will help to identify any codes that have been allocated but remain unused for an extended period. Following the audit, any entity holding such unused short codes should be formally notified and required to surrender the code within a defined timeframe. This approach will not only optimize the allocation of short codes but also free up valuable numbering resources that can be reallocated to other entities in need.

2.84 In view of the above, **the Authority recommends the following:**

(i) Level-1 short-codes to be allocated to Government entities only.

(ii) To conduct an annual utilization audit of all the allocated short codes. The assigned short codes that have remained inactive for contiguous 180 days or more or are sparingly used should be formally withdrawn by the DoT on merit in consultation with the user entities.

Service Control Point (SCP) and Signalling Point (SP) Codes

2.85 The DoT assigns three-digit **Service Control Point (SCP) codes** to service providers for use in their Intelligent Network (IN) platforms, which help route of calls. SCP codes are allocated individually within each Licensed Service Area (LSA). However, due to service shutdowns by some licensees, many SCP codes remain unused. To optimize their use,

DoT has initiated the withdrawal of codes from inactive licensees as per its letter dated 02.11.2023[9]. Currently, around 14 % of the available 1,000 SCP codes stand utilized.

2.86 **Signalling Point Codes (SP codes)** are essential for identifying various network elements within telecommunications infrastructure, facilitating efficient network operations, and ensuring seamless connectivity. The DoT allocates SP codes to telecom service providers (TSPs) for components such as Mobile Switching Centres (MSC), Gateway MSCs (GMSC), and Fixed-line Switches. SP codes for mobile operators come in 4-digit (9000 series) or 5-digit (10000 series) formats. In the context of the current proliferation of IP-based exchanges among the mobile and fixed-line network operators in India, the utilization of Signalling Point Codes (SP codes) is anticipated to decline as the number of network elements is reduced as compared to circuited-based (TDM) telecom network.

2.87 According to DoT data, apart from current utilization, there are 1532 additional SP codes available for future allocation. Therefore, it is unlikely that there will be any imminent shortage of SP codes. With the above-stated background, the Authority had solicited comments from stakeholders on the following question:

Q 13. Are there any constraints/challenges envisaged with regards allocation and utilization of TI resources for Service Control Point (SCP) codes and Signalling 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.

Comments of stakeholders on the Q13

[9] https://dot.gov.in/sites/default/files/WITHDRAWL%20OF%20SCP%20CODES%20AND%20PRESENT%20STATUS%20OF%20ALLOCATION%20OF%20SCP%20CODES-1.pdf?download=1

2.88 In response to Q13, the comments received from the majority of stakeholders indicate that there are currently no constraints or challenges envisaged with the allocation and utilization of Service Control Point (SCP) and Signalling Point (SP) codes. Presently, only 14.5% of the available SCP codes stand utilized, with a substantial number of codes remaining available for allocation and hence, are deemed sufficient for current and future needs. Therefore, no changes to the allocation or utilization of SCP codes have been proposed by the respondent stakeholders.

2.89 Given the current market conditions, the majority of stakeholders have also reported that SP codes are sufficiently available. Stakeholders have also pointed out that diminishing SP code requirements coupled with the availability of unallocated codes suggest that there are no immediate constraints anticipated.

Analysis of the issues raised through the Q13

2.90 Given the ample availability of both SCP and SP codes and the lack of any foreseeable constraints, the Authority, concludes that **no immediate intervention is required at this stage**.

Location Routing Number (LRN) Codes

2.91 The **Location Routing Number (LRN)** is a critical component in the implementation of **Mobile Number Portability (MNP)** in India. MNP allows mobile subscribers to continue retaining their phone numbers when migrating from one service provider to another. The LRN is a unique 4-digit number assigned to each telecom service provider, helping to accurately route calls within a mobile network, especially after a number has been ported. Without LRN, it would be difficult to determine which operator, a ported number belongs to, as the first few digits of the TI resource currently no longer indicates the TSP. This

challenge is resolved by associating the mobile number with an LRN, tells the network to which operator the number currently belongs. The LRN system ensures that even in high-traffic conditions, calls are routed accurately and efficiently, improving overall network performance and user satisfaction.

2.92 A 4-digit LRN code can potentially generate up to 10,000 unique codes. However, as indicated by the data provided by the DoT, only a total of 388 unique and discrete LRN codes out of 10000 possible LRN codes are available out of which 173 LRN codes have been allocated to TSPs. Each LRN code is assigned to a TSP for each Licensed Service Area (LSA), implying that the available spare codes could accommodate approximately 10 additional TSPs, assuming they each obtain licenses for all 22 LSAs. Recently, the DoT withdrew bulk codes from licensees who ceased their mobility operations. Additionally, it has been noted that LRN codes are now being allocated to Mobile Virtual Network Operators (MVNOs) and TSPs providing IP-based access service. As already brought out in the consultation paper, there is a concern that the 215 remaining LRN codes may not be sufficient to meet future demands. Given the above-stated facts, the Authority solicited comments of stakeholders on the following question:

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.

Comments of stakeholders on the Q14

2.93 In response to the above-stated question, the comments received from stakeholders indicate a consensus that the current pool of Location Routing Numbers (LRNs) is sufficient to meet the present and near-

future demands of TSPs. Several stakeholders assert that there is no immediate shortage of LRN resources and do not foresee any constraints in the foreseeable future. However, concerns about future scarcity have also been highlighted by the stakeholders, particularly in scenarios involving the introduction of full number portability for fixed-line services or an increase in the number of MVNOs and IP-based operators.

2.94 One of the stakeholders also proposed introducing a 5-digit LRN code system, which would substantially increase the number of available codes, thus addressing potential future shortages. However, this shift would require a thorough technical feasibility study and separate consultation with stakeholders, as migrating from the current 4-digit to a 5-digit LRN code system could be CAPEX intensive and may involve changes to existing infrastructure. Additionally, the prospect of full number portability for fixed-line numbers has been identified as a possible driver of increased LRN demand. Stakeholders have also emphasized through submitted comments that if number portability were extended to fixed-lines, a comprehensive review of the LRN allocation process would be necessary. Another notable suggestion received involves the creation of a National License Service Area (NLSA) by merging all existing LSAs under the "One Nation, One License" principle. Overall, while there is broad consensus amongst stakeholders that the current LRN pool is adequate for the time being, stakeholders are also indicative of remaining vigilant about future developments, particularly in light of emerging technologies and regulatory changes that could affect the demand for LRNs.

Analysis of the issues raised through the Q14

2.95 The Authority has observed that the majority of stakeholders, including service providers and industry associations, concur that no immediate constraints are anticipated concerning the reserve pool of LRN codes. They further assert that the resources currently allocated by the DoT are adequate and no immediate adjustments or interventions are

deemed necessary at this juncture. However, the Authority opines that considering the rapid evolution of telecom services, DoT should closely monitor the demand for LRNs, especially from MVNOs and IP-based providers. While previous guidance recommended avoiding the use of LRN codes coinciding with SDCA codes, the unique and distinct purposes served by mobile and fixed-line networks enable their concurrent use without operational conflict. To optimize available resources and ensure sufficient LRN availability for current and future needs, the full 4-digit LRN code range should be unlocked for utilization.

2.96 In light of the growing demands for Location Routing Numbers (LRNs) to support mobile number portability (MNP) and the overall expansion of futuristic technologies in the telecom sector, **the Authority recommends that the complete range of the 4-digit LRN code pool, be made use of for all future allocations of LRN codes.**

2.97 The recommendations mentioned above will help address potential shortages in LRN codes while safeguarding the efficiency of both mobile and fixed-line communication systems.

Intelligent Networks (IN) services - Free Phone, Premium rate service, ITFS etc.

2.98 The Intelligent Network (IN) represents an advanced telecommunications architecture designed to support value-added services that go beyond the capabilities of traditional switching systems. These services are particularly important for enhancing voice and data transmission by offering features such as number translation and alternative billing mechanisms. Key examples of IN services include free phone services, universal access numbers, televoting, premium rate services, etc.

2.99 **Free Phone Service** - The Free Phone service, commonly known as a toll-free service, allows users to make calls without incurring charges. The calling party can access this service free of cost, with the called party bearing all expenses. With the increasing prevalence of customer support systems and marketing platforms utilizing toll-free numbers, the format typically comprises 8 to 13 digits and follows the structure:

“1800 + YYY + IN number”

where 'YYY' refers to the Service Control Point (SCP) code). This format has become a standard for businesses offering free customer care support, with industries relying heavily on these numbers to enhance customer outreach and satisfaction.

Universal Access Service (1860 Series)

2.100 The Universal Access Service (UAS), represented by the 1860 number series, is a service where the call charges may be borne by either the calling party or shared between the calling and receiving parties. These numbers, typically 11 to 14 digits long, are used by businesses and institutions to provide nationwide or localized services that are chargeable. The format follows:

“1860 + YYY + IN number”

where 'YYY' corresponds to the SCP code). In today's context, the rise of hybrid pricing models for customer interactions has seen an uptick in the use of such numbers, where charges may be split between both parties for flexible billing solutions.

Premium Rate Services (0900 Series)

2.101 Premium Rate Services, associated with the 0900 number series, enable callers to access specialized information or live services at a higher rate than standard calls. This service typically provides access to premium

content such as professional consultations, advice, or entertainment (e.g., fortune-telling, market analysis). The format is:

"0900 + XXX + IN Number"

where 'XXX' refers to the SCP code. These services have grown significantly in recent years, with an increasing number of professionals leveraging telecommunications networks to offer on-demand consultations in fields ranging from finance to lifestyle and entertainment. Additionally, the 0900 series have become more relevant in sectors offering paid content and interactive services via phone calls, such as pay-per-call systems.

International Dialling Methods

2.102 According to the National Numbering Plan (NNP) 2003, only two access methods are allowed for calling numbers outside India. For international services, the DoT has assigned the '00' prefix for outgoing international calls, followed by the country code. Calls made through this method can be up to 17 digits long, following the structure:

"Country Code (CC) + National Destination Code (NDC) + Subscriber Number (SN)".

2.103 For international toll-free services, the DoT has assigned the '000800' series, which telecom service providers use for facilitating toll-free services for users outside India. The format for this series is:

000 + 800 + International Identity Code (IIC) + XXXX (subscriber number),

where the IIC is a unique identifier assigned by the DoT to international service providers. In recent years, these numbering systems have remained critical for ensuring seamless international communications, particularly for multinational businesses and global customer service operations.

2.104 Based on the data provided by the DoT, there are no significant constraints concerning the availability of identifiers for IN services. However, in light of the rapidly evolving telecommunications landscape, the Authority solicited comments of stakeholders on the following question:

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.

Comments of stakeholders on the Q15

2.105 In response to the above-stated question, the stakeholder comments reflect a consensus that there are currently no constraints or foreseeable challenges in the allocation of TIs for Intelligent Network (IN) services such as Free Phone, Premium Rate Services, and International Toll-Free Services (ITFS). The existing allocation framework appears sufficient to meet the demand for Free Phone services, Premium Rate services, and ITFS. With only 14.5% of the available SCP (Service Control Point) codes utilized, there is significant capacity to allocate resources without changes to the present system. This indicates that the current structure is scalable and can handle future demands without any immediate concerns about resource shortages.

2.106 The comments received from stakeholders have also emphasized the availability of a significant number of SCP codes. Stakeholders have reiterated upon the under-utilization of these codes suggesting that, even with the projected growth of IN services, the existing pool of unutilized SCP codes has more than enough capacity to meet future demands.

2.107 One stakeholder emphasized upon the need for introducing Number Portability for IN numbers, particularly for toll-free and premium-rate services, aligning with the current practice of Mobile Number Portability (MNP) wherein, the current centralized database has been suggested to allow for easy lookup and routing of ported numbers, to ensure seamless service continuity post-porting.

2.108 One of the stakeholders also brought out that Premium Rate Services (PRS), which was previously popular during the voice-centric era, is currently no longer relevant in the modern data-driven telecommunications environment. With the rise of internet-based services, the stakeholder further suggested reconsidering the need for 0900 series numbers and possibly reassigning this number range for other purposes.

2.109 Another stakeholder brought out that for International Toll-Free Services (ITFS), the handoff point between the Access Network and the International Long-Distance Operator (ILDO) has not been specified.

2.110 One of the stakeholders stated that it foresees no immediate challenges and that the existing framework appears robust enough to meet future demand without requiring modifications.

Analysis of the issues raised through the Q15

2.111 It is noted that sufficient unused SCP codes are available to meet the potential future demands. The Authority opines that, while the present state of TI resources does not necessitate immediate action, it would be prudent for DoT to remain vigilant on TI resource allocation strategies for IN services. Resource allocation strategies should anticipate the growth of innovative services in the IN domain, potentially triggered by advancements in VoIP and Internet-based communications. The availability of SCP codes today does not preclude their rapid exhaustion tomorrow if these services scale unexpectedly.

2.112 In regard to the proposal for the introduction of IN number portability, the Authority opines that the proposal, while theoretically sound, encounters several practical hurdles. The creation of a centralized database to support INP would require significant infrastructural investments, by the participating TSPs. The complexity of integrating IN numbers into a dynamic, real-time database mirrors the Mobile Number Portability framework. Moreover, IN services often straddle a diverse range of offerings (toll-free, premium, virtual network services), each with its own routing complexities. The Authority infers that ensuring seamless porting across these categories introduces an additional layer of complexity. The Authority thus infers that the administrative burden and technical challenges inherent in developing and maintaining such a database currently outweigh the benefits of implementing INP.

2.113 The Authority also opines that the suggestion to withdraw the 0900 premium-rate services, while acknowledging the evolving data-driven call services landscape, does not warrant acceptance at this time. Although such voice services are witnessing a decline, the complete reallocation of these numbering resources is premature and lacks sufficient justification. The 0900 series, though underutilized, still serves a niche market, and its withdrawal may disrupt existing services that continue to rely on it. Furthermore, there is no immediate need to repurpose these resources, as other numbering allocations remain available for emerging technologies. Thus, the Authority infers that the proposal does not present a compelling case for regulatory intervention at this stage.

2.114 In light of the above-stated analysis, the Authority is of the view that:

(a) **SCP Code Management:** As the current resource pool of SCP codes is adequate, DoT may continue with the current allocation mechanism for SCP codes.

(b) **Fixed Number Portability (FNP):** Incorporating toll-free numbers into a portability database is currently not feasible.

(c) **Centralized Repository**: The idea of a centralized repository for toll-free numbers requires further assessment and hence there is no immediate requirement to implement a centralized repository for toll-free numbers.

(d) **'0900' Premium-Rate Services:** The Authority further is of the view of continuing the '0900' series for premium rate services as its current niche demand still justifies its continuation.

2.115 To conclude, **there is no intervention required for IN services by the Authority and its existing frameworks should continue.**

MCC-MNC (Mobile Country Code-Mobile Network Code) for Captive Network Non-Public (CNPN)

2.116 The assignment and governance of MCC-MNC codes hold critical importance in CNPNs, as these codes are essential for distinguishing and routing communications across various private cellular networks. The MCC denotes the country where a mobile network is registered, while the MNC specifies the individual network within that nation. This unique code pairing enables a distinct global identifier for each mobile operator, ensuring smooth communication and data transfer within private cellular ecosystems. As CNPNs expand, precise allocation and usage of MCC-MNC codes are vital for optimizing network performance and the broader ecosystem of connected services. The 15-digit numbering format employed for MCC-MNC codes in CNPN is structured as follows:

"**999 (fixed 3 digits for CNPN) + XXX XXX (6 digits for service providers) + XXX XXX (6 digits for 1 million users/services).**"

With six digits allocated for CNPN identification, no foreseeable limitations exist concerning telecom identifiers for MCC-MNC within CNPN.

2.117 However, in light of the allocation of TI resources for MCC-MNC codes for CNPNs, the Authority solicited comments from stakeholders on the following question:

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.

Comments of stakeholders on the Q16

2.118 In response to the above-stated question, the consensus among the majority of stakeholders is that the current 15-digit MCC-MNC numbering scheme used for Captive Non-Public Networks (CNPNs) is potentially adequate however, it may pose potential capacity constraints in the near future due to the 6-digit Mobile Network Code (MNC) allocation.

2.119 Few stakeholders brought out that the current mechanism of consuming 6 digits for MNC code allocation by the DoT for allocation of TI resources for CNPNs, limits subscriber capacity to 1 million, which is inadequate for network expansion. These stakeholders further suggested for DoT to revise its allocation mechanism by shortening it to a 3-digit MNC code length (in consonance with ITU-T E.212 standards), which would increase subscriber capacity to 1 billion, thereby enhancing efficiency and resource availability for TSPs.

2.120 One of the stakeholders brought out that there is no need for changes in the 15-digit MSISDN structure. However, challenges may emerge particularly during Mobile Number Portability (MNP) for CNPN users.

Analysis of the issues raised through the Q16

2.121 While reviewing the comments rendered by various stakeholders regarding the MCC-MNC codes for CNPNs, it is apparent to the Authority that the current 15-digit numbering scheme effectively addresses the unique needs of CNPNs while avoiding constraints associated with public networks. Stakeholders have outlined that the structure of the MCC-MNC code, which includes a fixed 3-digit code for CNPNs and a 6-digit code for service providers, allows for flexibility without imposing limitations on telecom identifiers. This independence is vital for ensuring that CNPNs can operate effectively within their designated parameters without encroaching upon the public network resources.

2.122 However, the Authority is also sanguine with the fact that several stakeholders have raised concerns about the current allocation methodology adopted by the DoT, particularly regarding the 6-digit length of the Mobile Network Code (MNC). Stakeholders have emphasized that this structure restricts the available resource capacity to only 1 million users, which is insufficient for the anticipated growth and rollout of CNPNs by TSPs. The suggestion of a few stakeholders to shorten the MNC to 3 digits is echoed in multiple submissions, highlighting a consensus that aligning the MNC length with ITU standards could expand the resource capacity to 1 billion identifiers.

2.123 In addition to the above-stated concerns, the Authority has also taken note of the concern of stakeholder that while the current TI resources for MCC-MNC codes do not face direct constraints, the approach taken by the DoT may not fully leverage the potential of the available numbering scheme. Based on the analysis of inputs received from the stakeholders as highlighted in the paragraphs above regarding the allocation of MCC-MNC codes for Captive Non-Public Networks (CNPNs), it is clearly evident to the Authority that the current practice of utilizing a 6-digit MNC code serves as a prudent measure to include more and more TSPs providing CNPN service while ensuring a check on liberal

allocation of TI resources. This strategy effectively safeguards against the risk of oversaturation and ensures that the resources allocated to CNPNs are sufficient for their intended purpose while maintaining a structured approach to TI resource management.

2.124 The Authority further opines that while the 6-digit MNC format may impose limitations on capacity, it is essential to recognize that this approach is a calculated step towards fostering a well-regulated and judicious TI resource allocation environment for CNPNs. By avoiding hasty expansions that could lead to TI resource depletion, the current framework facilitates a sustainable model.

2.125 Based on the thorough analysis of stakeholder comments and current operational requirements, **the Authority recommends that the existing format of MCC-MNC code allocation for Captive Non-Public Networks (CNPNs) must currently remain unchanged.**

2.126 In addition to the questions discussed above, the Authority solicited comments from stakeholders on the following final question:

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.

Comments of stakeholders on the Q17

2.127 In response to the above-stated question, the Authority received a wide variety of comments from the stakeholder's diaspora. One of the stakeholders emphasized the need for a Regulatory Impact Assessment.

2.128 Another stakeholder suggested that India should pioneer telecom practices for global adoption, including redefining mobile number

recycling and creating a unified customer identification system across telecom providers. The stakeholder further suggested the following:

(a) Social media apps using mobile numbers should have their own numbering resources and KYC duties.

(b) Telecom resources should be based on market share, and inactive numbers should have a "safe custody" option.

(c) Clear processes for recycling numbers should be defined and limiting SIM acquisitions can help curb cybercrimes.

2.129 Another stakeholder requested for allowing the continued use of the ITU-allocated 901.xx Global IMSI series for M2M and IoT in India, as it enabled seamless, cross-border connectivity. The stakeholder further stated that permitting 901.xx will align India with global practices and support the evolving IoT ecosystem.

2.130 One of the stakeholders also brought out that the third-party apps like True Caller, Samsung, OnePlus, MI, and Apple dialers crowdsource data to associate phone numbers with names. The stakeholder further stated that, when numbers are recycled, they often retain the old user's identity in such apps, deterring new users from accepting them. Additionally, the 140 series is being frequently tagged as spam by default, even if the number has been never assigned, further hindering the efficient use of these resources.

2.131 Another stakeholder brought out that with the advancement of technology, satellite-based access services will soon be available to Indian customers, routing traffic through local gateways. These services must utilize mobile national numbering resources, as devices will authenticate on Indian networks and calls will both originate and terminate within the country. Consequently, the proposed national numbering plan should include provisions for allocating mobile numbers to satellite-based services, along with addressing calling patterns under unified numbering.

Analysis of the issues raised through the Q17

2.132 While reviewing the comments rendered by the stakeholder, it is pertinent to note that TRAI through its established consultation process actively engages stakeholders at multiple stages of policy formulation. This includes issuing consultation papers to solicit input on proposed changes, gathering diverse perspectives, and analysing the potential implications of various options presented. The Authority considers the feedback received during these consultations to assess the economic, social, and technical impacts of proposed regulations, ensuring that stakeholder concerns and insights are integral to decision-making. Additionally, TRAI invariably conducts Open House Discussions (OHDs) related to each consultation process to identify areas for improvement, further reinforcing its commitment to transparent and informed policymaking. Given the foregoing, the Authority merits no further modifications or adjustments in its current consultation process.

2.133 The Authority has also taken note of the proposed several innovative measures aimed at positioning India as a leader in global telecom practices. These suggestions encompass redefining mobile number recycling, establishing a unified customer identification system across telecom providers, and ensuring that social media applications possess their own numbering resources along with KYC responsibilities. Furthermore, stakeholders have called for the allocation of telecom resources based on market share and the introduction of a "safe custody" option for inactive numbers, which could potentially mitigate cybercrime and enhance the recycling process of mobile numbers. The Authority would like to put forth that the practice of "*safe custody*" in lieu of a very nominal charge as compared to the tariff plan subscribed by the customer, is ab initio in vogue by TSPs especially in the case of fixed-line services. In case of cellular mobile services, in order to keep the subscriber number active while not being used, the option of scaling down to the cheapest available tariff plan (by choice) as safe custody charges is already available with the end users or customers. Further,

the Authority also opines that the suggestions of establishing a unified customer identification system amongst TSPs and instituting a separate KYC mechanism for social media applications, etc lie outside the scope and purview of this consultation paper hence no recommendations by the Authority on these aforesaid aspects are deemed necessary in this recommendation.

Chapter- III

SUMMARY OF RECOMMENDATIONS

3.1 The Authority is of the view that there is a necessity to institute revised criteria for the efficient allocation of fixed-line TIs. While allocating TI resources, smaller ranges for allocation may be introduced. Further, allocation requests subsequent to initial allocation should be restricted to approximately 50% or less, of the initial allocation.

[Para 2.19]

3.2 The Authority is of the view that to address TI resource constraints in the short term, the DoT as per the extant allocation mechanism should:

(i) Continue allocating SDCA-specific spare sub-levels to TSPs.

(ii) withdraw unutilized sub-levels from TSPs and re-allocate them to other TSPs within the same SDCA

[Para 2.22]

3.3 To effectively mitigate TI resource constraints in the long run for fixed-line services with minimal disruption, the Authority recommends the following: -

(i) Migration from the existing SDCA-based numbering scheme to an LSA-based 10-digit closed numbering scheme for fixed-line services.

(ii) The following should be adapted to implement the LSA-based 10-digit closed numbering scheme for fixed-line service:

a. Dial all fixed-line to fixed-line calls using a prefix of '0', followed by the SDCA code and the subscriber number.

b. Even local calls within the same SDCA are to be dialled using a prefix of '0', followed by the SDCA code and the subscriber number.

c. The dialling pattern for fixed-to-mobile, mobile-to-fixed, and mobile-to-mobile calls will remain unchanged.

d. DoT may allow a period of six months to TSPs to implement the new numbering scheme.

e. Following the implementation of the 10-digit closed numbering scheme, appropriate announcements should be programmed into fixed-line switches to inform subscribers about the revised dialling pattern for fixed-to-fixed calls. This will ensure that users are adequately apprised of the changes and can seamlessly adapt to the modified dialling pattern.

(iii) TI resources generated using SDCA codes with suffix sub-level(s) allocated to TSPs be used across the entire LSA rather than confined to specific SDCAs after migration to the LSA-based 10-digit closed numbering scheme.

(iv) The additional new fixed-line codes for allocation to TSPs can be created by the following methods: -

a. <u>Using Spare Sub-levels</u>: Spare sub-levels in the SDCAs of an LSA should be suffixed after respective SDCA codes to generate new fixed line codes (i.e. SDCA Code + spare sub-levels). The newly generated fixed-line codes will be available for allocation to any TSP for utilisation within the LSA.

b. <u>Using Unutilized Sub-Levels</u>: The sub-levels assigned to a TSP but remaining unutilised within any SDCA (of an LSA) can be withdrawn. The newly generated fixed-line codes (SDCA Code + withdrawn sub-levels) can be allocated to

needy TSPs for provisioning of fixed-line services within LSA.

[Para 2.27]

3.4 The Authority recommends that a 10-digit fixed-line numbering scheme using a Fixed-line Location Routing Number (FLRN) code should be adopted, after the successful implementation of the LSA-based 10-digit closed numbering scheme, at the earliest preferably within a maximum period of five years.

[Para 2.33]

3.5 In view of the above, the Authority recommends the following: -

(i) DoT should formulate guidelines for allocating TI resources with SIP trunk and PRI connections to Enterprise Entities.

(ii) DoT field units should monitor the allocation of TIs beyond 15 TIs per Mbps for SIP and PRI connections.

(iii) The TSPs submit the voice traffic (outgoing or incoming) report of SIP and PRI to the DoT field units for further examination for any misuse of TIs for UCC.

(iv) The Authority reiterates its recommendations on '*Introduction of Calling Name Presentation (CNAP) Service in Indian Telecommunication Network*' dated 23.02.2024 to be implemented by the DoT at the earliest. Further, CNAP supplementary service for all SIP and PRI calls terminating on Mobile Networks should be expeditiously implemented to inhibit UCC and spam calls.

(v) TSPs must implement the CLI authentication framework (in consonance with ITU-T Q.3057(04/2020) recommendation) to safeguard telecommunications signalling from abuse, including CLI spoofing and tampering while extending SIP/PRI trunks for non-TSP entities.

(vi) DoT, in consonance with ITU-T Q.3062(09/2022) recommendation framework, may establish a trust framework by authorising a centralised or distributed Certification Authority (CA) to authenticate and validate signalling messages between various network entities.

[Para. 2.39]

3.6 The Authority recommends the following definition for the term '*activity*' and '*non-usage*' in the context of fixed-line services:

(i) 'activity' means any outgoing or incoming telecommunication (voice and/or data), broadband/ internet services, value-added services (such as conference calling, call forwarding, voicemail, etc), other services (such as FAX, SIP trunking, PRI-based services, etc), or payment of rental in case of postpaid fixed-line connection or any other usage as may be specified by the service provider.

(ii) 'Non-usage' means the absence of 'activity' as defined in Para 2.53 (i) above for a contiguous period of 90 days.

[Para. 2.53]

3.7 The Authority recommends the following:

(i) No mobile or fixed-line connections shall be deactivated by the TSPs until 90 days of the non-usage period expires.

(ii) All mobile and fixed-line connections that remain inactive due to non-usage shall be mandatorily deactivated by the TSPs after 365 days post-expiration of 90 days of the non-usage period.

(iii) No mobile or fixed-line connections deactivated due to non-usage shall be reused by the TSPs until the expiry of a minimum period of 90 days from the date of deactivation.

(iv) No mobile or fixed-line connections deactivated/ disconnected for reasons other than non-usage (such as

surrender/ disconnection by the customer or TSP) shall be reused by the TSPs until the expiry of a minimum period of 180 days from the date of deactivation/ disconnection.

[Para. 2.56]

3.8 The Authority is of the view that there is no need to impose any additional charge or financial disincentive on TI resources at this stage.

[Para 2.57]

3.9 The Authority opines that DoT should closely monitor the annual usage of TI resources allocated to TSPs and if required, may withdraw unutilized TI resources.

[Para 2.58]

3.10 The Authority is of the view that no interventions are necessary for M2M TI resources.

[Para 2.62]

3.11 The Authority recommends that DoT should expeditiously implement the accepted recommendation of TRAI on - '*Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services*' dated May 29, 2020, stating that all the SIM-based M2M connections using 10-digit mobile numbering series should be shifted to the 13-digit numbering series for M2M communication at the earliest.

[Para 2.65]

3.12 The Authority recommends the following:

(i) Level-1 shortcodes to be allocated to Government entities only.

(ii) To conduct an annual utilization audit of all the allocated short codes. The assigned short codes that have remained inactive for contiguous 180 days or more or are sparingly used should be formally withdrawn by the DoT on merit in consultation with the user entities.

[Para 2.84]

3.13 The Authority recommends that the complete range of the 4-digit LRN code pool, be made use of for all future allocations of LRN codes.

[Para 2.96]

3.14 There is no intervention required for IN services by the Authority and its existing frameworks should continue.

[Para. 2.115]

3.15 The Authority recommends that the existing format of MCC-MNC code allocation for Captive Non-Public Networks (CNPNs) must currently remain unchanged.

[Para. 2.125]

ANNEXURE- I

[Refer para. 1.6 of Chapter I]

16-16/2022-AS-III/

/3062500/2022

भारतीय दूरसंचार विनियामक प्राधिकरण
महानगर दूरसंचार भवन, नई दिल्ली-02
पंजीकरण सं. 14155
07 OCT 2022
ई आफिस सं.

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road, New Delhi-110001

No. 16-16/2022-AS-III/ 123/233 **Dated: 29-09-2022**

To,
The Secretary,
Telecom Regulatory Authority of India,
Mahangar Door Sanchar Bhawan,
Jawahar Lal Nehru Marg,
Old Minto Road, New Delhi.

Subject: Seeking recommendation on revised National Numbering Plan (NNP)-regarding.

Sir,

Kindly refer to the TRAI recommendations on "Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services" dated 29th May, 2020. The recommendations of TRAI have been considered by Digital Communication Commission (DCC). The summary of TRAI recommendations, DCC decisions on respective recommendation and brief status of implementation is enclosed at **Annexure-I**.

2. In para 4.11(a) of aforesaid recommendations, TRAI had inter-alia recommended that '*a revised and new National Numbering Plan (NNP) should be issued at the earliest*'. This recommendation has been accepted by DoT.

3. DoT has also received requests from Telecom Service Providers (TSP), particularly M/s Reliance JIO and M/s Bharti Airtel, for additional fixed line resources. The recent requests from TSPs are placed at **Annexure II**. From these requests, it can be seen that there may be wire-line numbering resource constraints in Gurgaon and Noida/ Ghaziabad as well as in some other parts of country.

4. To ensure adequate numbering resources for wire line, pending revision of NNP, DoT has amended existing numbering resource allocation criterion vide DoT letter No. 16-03/2018-AS-III/MSC dated 08.08.2022 (**Annexure-III**). In this revision, a graded utilization criterion, similar to mobile numbering resources allotment, has been introduced.

5. To address the present and possible future constraints related to availability of adequate fixed line numbering resources arising out of rapid growth, a review of fixed line numbering plan is required after due consultation with stakeholders.

6. In addition, following points are also referred for examination and recommendations:

a. Considering the competitive tariff plans offered by Access Service Licensees at LSA and Pan-India level, TRAI may examine the requirement for continuing with SDCA based Numbering Plan Area (NPA) as defined in NNP-2003 or could be to go for LDCA based numbering scheme from the present SDCA based numbering scheme.
b. DoT is getting large number of requests from Govt. and non-government organization for allocation of short codes. TRAI may examine global best practice and provide recommendation on effective use of precious numbering resources for level '1' services in context of requirement of the country.

7. Further, the numbering plan aspects and allocation criteria related to following services may also be considered in revised NNP: -

a. Allocation of MCC and MNC for Captive Network Non-Public(CNPN)
b. M2M numbering resources **(Annexure-IV**).
c. Signaling Control Point (SCP) codes
d. National Signaling Point (SP) Codes for SS7 signaling**(Annexure-V).**
e. Intelligent Network Services like free phone, Premium rate service, international free phone (**Annexure-VI**) etc.
f. Number portability codes
g. Any other number based emerging services

8. In view of above, it is requested that revised National Numbering Plan may be recommended under Clause 11(1) (a) of the TRAI Act 1997 as amended by TRAI amendment Act, 2000, considering global best practices and DCC decisions on TRAI recommendations dated 29th May, 2020.

9. This issues with the approval of competent authority.

Encl: As above.

29/09/22

(Sunil Kumar Singhal)
DDG (AS)

Annexure-I

1. **Background:** DoT sought TRAI recommendations on strategies of National Digital Communication Policy, 2018, vide letter No. Dated 08.05.2019, on item 2.2(e) i.e.

   "(e) Ensuring adequate Numbering resources, by

   ...

   ii. Developing a unified numbering plan for fixed and mobile services."

2. TRAI has provided its recommendations dated 29th May,2020 on *'Ensuring Adequate Numbering Resources for Fixed Line and Mobile Services'*

3. TRAI recommendations have been examined in DoT and summary decisions of DoT and current status is given below.

TRAI Recommendation	**Decision of Digital Communication Commission(DCC)**	**Status /Remarks**
2. a. Sparingly used sub-levels in level '2', '3', '4', '5', and '6', may be withdrawn after seeking sub-level wise utilization from the TSPs providing fixed line services. b. Levels/ sub-levels allocated to some fixed line TSPs who have not launched their services even after one year of allocation, may also be withdrawn after seeking justification. c. These withdrawn levels should be reserved for future allocations for fixed line service providers.	**Accepted.** Only 20.584 million wireline connections are operational by 31st January, 2020. In 2017, few MSC codes were withdrawn from TSPs whose utilization percentage was less than 10%. Hence, the same criterion may be used.	DoT has issued directions to all TSPs vide DoT letter 16-16/2020-AS-III/25/1637 dated 20.11.2020 to seek the information of Un-utilized/underutilized MSC and wireline codes as DoT on annual basis in the formats defined in the letter. **(Annexure-A)**
3. The Authority recommends that all the SIM-based M2M connections using 10-digit mobile numbering series should be shifted to the 13-digit numbering series allocated by DoT for M2M communication; at the earliest.	**Accepted.** DoT has allocated level identifiers '559', '575', '576', '579' and '597' out of which only level identifier '575' is utilized. TSPs have been instructed to shift the SIM-based M2M connections	Instructions already issued by DoT prior to the recommendation.

	using 10-digit mobile numbering series to the 13-digit numbering series allocated by DoT.	
4.The Authority recommends that the mobile numbering resources surrendered by TSPs who have closed down their wireless operations, may be re-allocated to those TSPs who need more numbering resources.	**Accepted.** DoT is already allocating the mobile numbering resources surrendered by TSPs who have closed down their wireless operations to those TSPs who need more numbering resources.	DoT has been following the procedure prior to the recommendation.
5.The Authority recommends that the following scheme should be adapted for creation of sufficient numbering space: a. Dial all fixed to mobile calls with the prefix '0'. b. No change in dialing plan for fixed to fixed, mobile to fixed, and mobile to mobile calls. c. A total time of one month may be given to all the TSPs to implement this scheme. d. Suitable announcement may be fed in the fixed line switches to apprise the fixed line subscribers about the requirement of dialing the prefix '0' for all fixed to mobile calls. This announcement should be played whenever a subscriber dials a fixed to mobile call without prefixing '0'. e. All the fixed line subscribers should be provided with '0' dialing facility.	**Accepted.**	DoT has issued directions to all TSPs vide DoT letter No. 16-16/2020-AS-III/24/636 dated 20.11.2020. **(Annexure-B)**

6.The Authority recommends that: a. after exhausting all the surrendered numbering resources, the existing SDCA codes starting with '6', '3', '4', and '2', may be used for mobile services by suffixing with '0', '1', '8', and '9'. Initially, existing SDCA codes of level '6' may be used followed by levels '3', '4', and '2', successively. b. after exhausting all the numbering resources using the earlier steps, the spare codes listed in the NNP 2003 may be used for mobile services. Initially, spare codes of level '6' may be used followed by levels '3', '4', and '2', successively.	**Accepted.** **a.** First to utilize the spare SDCA codes listed in the NNP 2003 for mobile services after exhausting all the numbering resources using the earlier steps. Initially, spare codes of level '6' to be used followed by levels '3', '4', and '2', successively. This will make the availability of approximately 1571 million Numbering series. For example: When any landline subscriber dials the mobile number, it should be prefixed with '0'. Spare code level '610' can be dialed as 0610xxxxxxx, whereas, 'x' can be any number. This can be utilized for mobile numbers as these levels are not allocated as SDCA codes and there will be no requirement of change in routing of calls. **b.** SDCA codes starting with '6', '3', '4', and '2', will be utilized for mobile services by suffixing with '0', '1', '8', and '9' after utilizing the spare SDCA codes. This will create approx. 968 million mobile numbering series. For eg: existing SDCA code starting with level '6' i.e. '612' can be utilized as 0612AXXXXXX (where as 'A' shall be levels '0', '1', '8', and '9' and 'X' can be any number) as there are no levels allocated to Basic service providers with levels '0', '1', '8', and '9'.	

7. The Authority recommends that the present criterion of utilization for allocation of the numbering resources should be continued.	**Accepted.**	Present allocation criterion is being followed.
8. The Authority recommends that sparingly used MSC codes (less than 10 percent utilization after 2 years of allocation) may be withdrawn and reallocated to another TSP whose subscriber base is growing. The working connections may be ported out.	**Accepted.**	Instructions issued vide DoT letter 16-16/2020-AS-III/25/1637 dated 20.11.2020 **(Annexure-A)**
9. The Authority recommends that the Annual Return on utilization of the numbering resources should be submitted to the Numbering Plan Administrator by all the TSPs, both for mobile as well as fixed line numbering series. The format used for filing this return may be similar to the details presently given by the service providers for allocation of fresh block of numbers. In addition to annual submission, this return should be submitted every time the service providers make a request for fresh block of numbers.	a. TRAI recommendation regarding implementation of scheme of filing annual return for numbering resources is accepted. b. However, recommendation of TRAI on the requirement of filling utilization *of entire numbering series at each time for request of additional number block is not agreed* to. Filing of utilization of entire numbering series would be voluminous and may not be required at each time the request for additional number block is made. The present method may continue for allocation of new numbering series.	Instructions issued by DoT letter 16-16/2020-AS-III/25/1637 dated 20.11.2020 **(Annexure-A)**
10. The Authority recommends that an automated allocation of numbering resources using number management system software may be introduced to speed up the process of allocation in an efficient and transparent manner. If needed, this work may be outsourced with overall control and supervision of the DoT.	**Accepted.**	DoT is in process to introduce Numbering Resource Management Module in Saral Sanchar Portal for efficient numbering resource management including utilization reporting.

11. The Authority recommends that: a. a revised and new National Numbering Plan (NNP) should be issued at the earliest. b. a consolidated addendum to the NNP should be issued every year, which should include all newly allocated numbering resources for fixed line as well as mobile services. c. a consolidated list of short codes should be issued at the earliest. The short code allocations which are not in use should be withdrawn. d. the consolidated list of short codes should be updated every year incorporating all withdrawals and new allocations.	a. TRAI recommendation at 3.10 (a) regarding the proposal of issuing new/ revised National Numbering Plan is accepted. b. Allocated numbering resources and short codes shall not be made part of National Numbering Plan but will be separately available on DoT website and shall be updated at regular intervals. With the above, NNP will not be required to be updated yearly.	

4. Recently, DoT has amended new wireline numbering criterion to promote fixed line broadband services in India vide DoT letter No. 16-03/2018-AS-III/MSC dated 08.08.2022. In this criterion, graded criterion, similar to mobile numbering resources allotment, is introduced so that the growth of wireline is not hampered which will also ensure availability of sufficient spare numbering resources in the hands of TSPs for meeting customers' demand.

Annexure-A

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road, New Delhi-110001

No. 16-16/2020-AS-III/25/ 1637 | **Dated: 20/11/2020**

To,
All Access Service Providers,

Subject: Un-utilized/underutilized MSC and wireline codes.

With reference to above subject, kindly intimate the following:

i. MSC codes which are utilised less than 10% after 2 years of allocation in the format as enclosed in Annexure-I.
ii. Less than 10% utilisation of level '2', '3', '4', '5', '6' and '7', in fixed line services in the format as enclosed in Annexure-II.
iii. Services not launched after one year of allocation of MSC/fixed line codes.
iv. The annual return on utilization of the numbering resources both for mobile as well as fixed line numbering series may also be submitted by 15th January of every year for the preceeding calendar year as of last week of December. The format for the same is attached as Annexure-III.

This is issued with the approval of competent authority.

SKgarg 20.11.2020
(Sanchit Kr. Garg)
Assistant Director General (AS-III)

Annexure-I

S No.	TSP	LSA	MSC series allocated (M)	Date of Allocation	Numbers allocated (N)	% utilized= N/M

Annexure-II

S No.	TSP	LSA	Wireline level allocated (M)	Date of Allocation	Numbers allocated (N)	% utilized= N/M

Annexure-III

S No.	Total MSC codes allocated	Attached VLR (A)	Deatched (B)	Intra Circle Out Roamers (C)	Intra Circle IN Raomers (D)	Inter-Circle Out Roamers (E)	Inter-Circle In Roamers (F)	Net VLR= (A+B+C-D+E-F) (V)	Port IN (H)	Port Out (I)	Net Ported (H-I)
Total Numbers Allocated (N)= Total MSC codes allocated + Net Ported Numbers											
% VLR figure= V/N											

Annexure - B

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road, New Delhi-110001

No. 16-16/2020-AS-III/26/1640/ **Dated: 25/11/2020**

To,

All Access Service Providers,

Subject: Corrigendum to letter dated 20.11.2020 regarding modification of dialing pattern from fixed line numbers to cellular mobile numbers.

This is in partial modification to DoT letter No. 16-16/2020-AS-III/24/1636 dated 20.11.2020 regarding modification of dialing pattern from fixed line numbers to cellular mobile numbers. In this regard, the undersigned is directed to state that:

Time till **15th January, 2021** is allowed to all the TSPs to implement this scheme instead of **1st January.**

The other contents shall remain same.

Skgarg 25.11.2020
(Sanchit Kr. Garg)
Assistant Director General (AS-III)

Copy to:
1. **Secretary, TRAI**

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road, New Delhi-110001

No. 16-16/2020-AS-III/24/ (636) **Dated: 20/11/2020**

To,
All Access Service Providers,

Subject: Modification of dialing pattern from fixed line numbers to cellular mobile numbers.

In order to ensure adequate numbering resources for fixed line and mobile services, TRAI recommendations dated 29.05.2020 on the subject has been accepted by the Department.

2. Following may be implemented:
   i. Fixed to mobile calls shall be dialled with prefix '0'.
   ii. Suitable announcement may be fed in the fixed line switches to apprise the fixed line subscribers about the requirement of dialing the prefix '0' for all fixed to mobile calls. This announcement should be played whenever; a subscriber dials a fixed to mobile call without prefixing '0'.
   iii. All the fixed line subscribers should be provided with '0' dialing facility i.e. STD dialing facility.

3. Time till 1st January is allowed to all the TSPs to implement this scheme.

4. Compliance of the same may be intimated.

5. This is issued with the approval of competent authority.

Sk garg 20.11.2020
(Sanchit Kr. Garg)
Assistant Director General (AS-III)

Copy to:
1. **Secretary, TRAI**

Annexure-II

Jio DIGITAL LIFE

दूरसंचार विभाग
Deptt. of Telecom
केन्द्रीय रजिस्ट्री
Central Registry
12 MAY 2022

Director (AS-III)
18447/CR/2022
12/5/2022

RJIL/DoT/2022-23/060
12th May 2022

To,
Director (AS-III),
Department of Telecommunications,
Room No. 907, 9th Floor, Sanchar Bhawan,
20, Ashoka Road, New Delhi – 110001

Sub.: Allocation of additional Wireline Access Service Codes for Bokaro SDCA in Bihar LSA.

Reference: DoT Letter no. 16-03/2018-AS-III/MSC/345/1591 dated 23.10.2020

Dear Sir,

1. Please refer above mentioned DoT letter dated 23.10.2020, wherein DoT has mentioned that additional Wireline Access Service Codes will be allocated to the TSP on utilization of 80% of numbers actually by the way of activation of subscribers.

2. In this regards, it is to inform that RJIL has received utilization certificate dated 09.05.2022 from Bihar TERM cell (copy enclosed as Annexure) wherein the utilization of numbers has been certified as 80.93% for Bokaro SDCA in Bihar License Service Area which is as per above mentioned DoT circular dated 23.10.2020.

3. It is requested to kindly allocate the additional Wireline Access Service Code to RJIL for Bokaro SDCA in Bihar License Service Area at the earliest so that we can meet the demand of additional numbering resources required to on-board our rapidly growing customers.

Thanking you,

For **Reliance Jio Infocomm Limited**

Kapoor Singh Guliani
Authorised Signatory

RELIANCE JIO INFOCOMM LIMITED

SO(AS-III) 13.5.22
ADG(AS-III) 12/5/22
ASO(AS-III) 13/5/22

Enclosure: As above

Reliance Jio Infocomm Limited, CIN : U72900GJ2007PLC105869
Correspondence Address : D-7, Dhawandeep Building, 6 Jantar Mantar Road, New Delhi - 110001, India.

31

भारत सरकार / Government of India
संचार मंत्रालय / Ministry of Communications
दूरसंचार विभाग / Department of Telecommunications
वरिष्ठ उपमहानिदेशक का कार्यालय, बिहार लाइसेंस सेवा क्षेत्र
O/o Senior Deputy Director General, Bihar LSA,
7वॉं तल, टेलिफोन भवन, आर–ब्लॉक, क्रान्ति मार्ग, पटना–1
7th Floor, Telephone Bhawan, R-Block, Kranti Marg, Patna-800001

No: DOT-TECH/BR/180/580/04/24 **Dated: 11th May 2022, Patna**

To,

The Director (AS-III),
Department of Telecommunications,
Sanchar Bhawan, 20 Ashoka Road,
New Delhi-110001

Subject: - Allotment of numbering level for Basic Access Services in Bokaro SDCA, Bihar LSA.

Ref: - Letter No. DoT/BR LSA/ Ranchi/Technology/2021—22/8 dated 09/05/2022 from DoT, Jharkhand.

With reference to above cited letters, the percentage of utilization of existing Basic Access Services numbering levels allocated to RJIL has reached more than 80% for Bokaro SDCA in Bihar LSA. The utilization report duly certified by DoT, Jharkhand office has been attached at Annexure-I.

This is being issued with the approval of the competent authority.

RAJEEV RANJAN Digitally signed by RAJEEV RANJAN Date: 2022.05.11 15:53:43 +05'30'

(Rajeev Ranjan)
Assistant Director General (T)

Encl:- As mentioned above

Copy to:

- M/s Reliance Jio Infocomm Limited

ADG(AS-III)

Government of India
Ministry of Communications
Department of Telecommunications
Telecom Enforcement, Resource and Monitoring Cell,
ARTTC Building, Near Jumar River, Ranchi - 835217 (Jharkhand)

No: DoT/BR LSA/Ranchi/Technology/2021-22/8 **Dated:09/05/2022**

To
The Sr. DDG
Bihar LSA, DoT
Patna(Bihar).

Sub:- Allotment of additional Numbering Levels for Basic Access Services- 796 series , 31 series and 35 series in Bokaro SDCA by M/s RJIL.

Ref:- Letter No 16-03/2018-AS-III/MSC/345/1591 dated 23.10.2020

M/s RJIL has submitted an application to this office that the percentage of utilization of existing Basic Access Services numbering levels allocated to RJIL has reached to 80% utilization for Bihar LSA part of Bokaro SDCA.(Letter enclosed).

M/s RJIL has got three levels allocated for Basic Access Services for Bihar LSA as 796 Series, 31 series & 35 Series and has requested for additional numbering level of two digit such as 36 or 37 Series.

As per DoT Hq letter as reference above, the percentage utilization of these two series (796 Series, 31 Series & 35 Series) in Bokaro SDCA has been certified by this office, which is enclosed as **Annexure-A .**

This is being forwarded to you for further necessary action.

09/5/22

Director(C-2)
DoT, Ranchi.
Bihar LSA.

Encl:- As above

Annexure-A

Sr. No	SDCA	Wireline Level allocated (L)	Wireline Number allocated (M)	Date of Allocation	Utilized Numbers(N)	Percentage Utilization(=N/M %)
1	Bokaro(06542)	796	1000	19/12/2013	971	97.1
2	Bokaro(06542)	35	10000	3-5-2017	9606	96.06
3	Bokaro(06542)	31	10000	27-07-2021	6419	64.19
Total	Bokaro(06542)	796 series + 35 series)	21000		16996	80.93

05/05/2022

File No. 16-16/2022-AS-III/ (Computer No. 125522)

605635/2022/AS-III

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

RP/FY 22-23/131/02

April 22, 2022

To,

Sh. Rajesh Soni
Director (AS III)
Department of Telecommunications
Ministry of Communications
Access Services Wing
20, Ashoka Road, New Delhi-110001

Subject: Requirement of additional Wire Line Number Series in Gurgaon and Noida to Airtel.

Reference Letter No: - File No: -800-21/2015-AS.II Dated 13.04.2017 & 20.04.2017

Dear Sir,

In respect of the above-mentioned subject, we wish to make the following submissions for your kind consideration:

1. Airtel has been allocated Wire line Number Resource starting digit 4. In Gurgaon (0124), and Noida (0120) SDCA having 3-digit STD Code, the complete level 4 has capacity of 10 lac numbering resources only.
2. We have taken up with Delhi Term Cell for reallocation of additional Wireline number resources for Gurgaon and Noida SDCA as the utilization of wire line number series allocated to Airtel has crossed 82% and 86% respectively as given below: -

SDCA (1)	Active Numbers (2)	Deactive (numbers with <90 days from disconnection & retained for same subscriber) (3)	Available Numbers (4)	Total Capacity (5)=(1+2+3)	Number Resource Used (6)=(2+3)	Utilization % (7)=(6/5)* 100
Gurgaon-0124	720945	103479	175576	1000000	824424	82.44
Noida--120	722512	137277	140211	1000000	859789	85.98

3. In this regard the wireline numbers disconnected in less than 90 days are not assigned to any other customer as these numbers have been retained for the same subscriber. This is similar to the guidelines (Annexure-1) issued by DoT for reallocation of deactivated/disconnected cellular mobile telephone connection of a subscriber as given below

   "The cellular mobile telephone connection of a subscriber deactivated for non-usage/disconnected on the request of subscriber. shall not be allocated to any other

subscriber till the expiry of a minimum period of 90 (ninety) days or such longer period, as may be specified by the licensee, from the date of deactivation/disconnection."

4. In wireline services the subscribers are prepaid and postpaid akin to mobile services and therefore the deactivated numbers less than 90 days are retained for same customer. While calculating the Mobile number utilization these deactivated number resources are considered as used resources in the same manner while calculating the Wireline number utilization these deactivated number resources should be considered as used resources. But in absence of similar guidelines for wireline the Delhi Term cell has not considered these deactivated resources as used resources leading to denial of additional wireline resources while the utilization is above 80%.
5. In view of the above it is requested to issue guidelines/directions to considered these deactivated resources in wireline as used resources while calculating the utilization of number resource.

Sincerely,
For **Bharti Airtel Limited**

Tarun Chitkara
Vice President - Regulatory Affairs

Government of India
Ministry of Communications
Department of Telecommunications
(Access Services Wing)
20, Ashoka Road, Sanchar Bhawan, New Delhi-01

File No: 800-21/2015-AS.II Dated: 13.04.2017

To

All CMTS/UAS/UL (having Access Service Authorization) Licensee(s)

Subject: Reallocation of deactivated/disconnected cellular mobile telephone connection of a subscriber- regarding

In reference to above mentioned subject, the undersigned is directed to convey the decision of Competent Authority that the cellular mobile telephone connection of a subscriber deactivated for non-usage/disconnected on the request of subscriber, shall not be allocated to any other subscriber till the expiry of a minimum period of 60 (sixty) days or such longer period, as may be specified by the Licensee, from the date of deactivation/disconnection.

2. The other rules/regulations as prescribed by the Licensor/TRAI on this subject matter shall remain unchanged.

Prashant Verma 13/04/17
(Prashant Verma)
ADG (AS-II)

Copy to:

1. Secretary, TRAI, New Delhi.
2. Sr. DDG (TERM), DoT.
3. CMD, NPCI, Mumbai.
4. Director (AS-I)/ Director (AS-III)/ Director (AS-IV)/ Director (AS-V).
5. COAI/AUSPI.

Government of India
Ministry of Communications
Department of Telecommunications
(Access Services Wing)
20, Ashoka Road, Sanchar Bhawan, New Delhi-01

File No: 800-21/2015-AS.II Dated: 20.04.2017

CORRIGENDUM

To

All CMTS/UAS/UL (having Access Service Authorization) Licensee(s)

Subject: Reallocation of deactivated/disconnected cellular mobile telephone connection of a subscriber- regarding

In partial modification of this office letter of even number dated 13.04.2017 (copy enclosed), the words ***"60 (sixty) days"*** shall be read as ***"90 (Ninety) days"***. The other content of the letter dated 13.04.2017 shall remain unchanged.

(Prashant Verma) 20/04/17
ADG (AS-II)

Copy to:

1. Secretary, TRAI, New Delhi.
2. Sr. DDG (TERM), DoT.
3. CMD, NPCI, Mumbai.
4. Director (AS-I)/ Director (AS-III)/ Director (AS-IV)/ Director (AS-V).
5. COAI/AUSPI.

Annexure-III

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road, New Delhi-110001

No. 16-03/2018-AS-III/MSC/ **Dated: 08-08-2022**

Office Memorandum

Subject: Criterion for allotment of Wire-line numbering resources.

1. **Background:**

a. At present, wire-line numbering resources are allotted as per DoT letter No. 16-3/2018-AS-III/MSC/345/1591 dated 23.10.2020. As per extant criterion, additional wire-line numbering resources are allotted to Access Service Licensee on utilization, by way of activation of subscribers, of 80% of already allotted wire-line numbering resources.

b. Access Service Licensees have informed the Department that the wire-line numbering resources allotted to them exhaust quickly especially in smaller towns having 3-4 digits SDCA (Short Distance Charging Area) codes. Therefore, they are facing difficulties in activation of new subscribers due to existing numbering allotment criterion.

2. Now, to promote the proliferation of wire-line services, it has been decided to amend the extant criterion of 80% utilization. Accordingly, additional wire-line numbering resources shall now onwards be allotted based on following utilization criterion:

Sr. No	Wire-line Numbering resources allotted	Minimum subscriber activation required for seeking additional wire-line numbering resources
1.	10,000 to less than 50,000	50%
2.	50,000 to less than 1,00,000	55%
3.	1,00,000 to less than 5,00,000	60%
4.	5,00,000 to less than 10,00,000	70%
5.	10,00,000 and above	80%

3. Access Services Wing is in the process to initiate the allotment of numbering resources through Saral Sanchar Portal which will further streamline the procedure of

allotment of additional numbering resources. In the mean-time, the extant procedure for allotment of additional numbering resources shall continue.

This issues with the approval of the competent authority.

Skgarg

(Sanchit Kr. Garg)
Assistant Director General (AS-III)

Signed by Sanchit Kumar Garg
Date: 08-08-2022 16:45:5
Reason: Approved

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road New Delhi-110001

No. 16-03/2018-AS-III/MSC/345/1591 **Dated: 23/10/2020**

To,

All Access Service Providers,

Subject: Criterion for allocation of Wireline Access Service Codes.

This is in modification to present criterion of allocation of Wireline Access Service Codes to Access Service Providers. In this regard, the undersigned is directed to issue following instructions:

i. New Wireline Service Service Code shall be allocated on the basis of utilization of numbers allocated till date.

ii. The data in the following format shall be certified by concerned LSA unit:

S No.	SDCA	Wireline level allocated (L)	Wireline Numbers Allocated (M)	Date of Allocation	Numbers utilized (N)	% utilized= N/M

iii. The access service provider will first approach the respective LSA unit for certification of above data and then submit their requisition for Wireline codes to Access Services cell of DoT enclosing therewith the LSA units certified figures.

iv. The additional codes will be allocated on utilization of 80% of numbers actually by the way of activation of subscribers.

This is issued with the approval of competent authority

Skgarg 23.10.2020
Sanchit Kumar Garg
ADG (AS-III)

Digitally signed by SANCHIT KUMAR GARG
Date:Fri Oct 23 12:07:13 IST 2020
Reason:Approved

Annexure - II

Government of India
Ministry of Communications
Department of Telecommunications
(Access Services Wing)
20, Ashoka Raoad New Delhi-01

No. 16-07/2017-AS-III/M2M/Part-I/124/148

Dated: 22/06/2022

To,

All Access Service Providers,

Subject: Criterion for allocation of additional 13 digit M2M numbering resources after the allocation of initial 5 million numbering resources.

This is in reference to the DoT letters dated 01.07.2016 and 09.12.2016 vide which it was approved to utilize 13-digit numbering series for SIM based M2M devices co-existing with 10-digit mobile numbering scheme. On the basis of the above letters, DoT issued 5 million 13-digit M2M numbering series per LSA to Telecom Service Providers vide letters dated 04.04.2018 and 29.08.2018 for commercial purpose.

2. The criterion for further allocation of 13-digit M2M numbering series to M2M service providers as follows:
   i. VLR criterion based mobile numbering series allocation is adopted for allocation of 13-digit M2M numbering resources as SIM would be used in similar way as mobile connections except for the addition of port in numbers and deletion of Port-out numbers as MNP is not allowed in M2M numbers.
   ii. The Access Service Provider(s) shall first approach the respective LSA field units for certification of VLR figures and then submit their requisition from LSA field units to DoT HQ enclosing therewith the LSA fields certified figures.
   iii. The allocation of M2M numbers will be in trench of 5 million at a time as compared to 1 million of mobile numbers allocation at a time presently.
   iv. 13-digit M2M numbering resources will be issued if the VLR figure reached the count (taking para (i) to (iii) into account) as below:

S No.	Numbers Allocated (N)	VLR Figure (V) as %age of Number Allocated (V/N)
1.	Less than 5 million	Subject to minimum of 40%
2.	5 Million to less than 20 Million	Subject to minimum of 45%

Sk garg

3.	20 Million to less than 50 million	Subject to minimum of 50%
4.	50 Million to less than 100 million	Subject to minimum of 55%
5.	100 Million to less than 150 million	Subject to minimum of 60%
6.	150 Million to less than 200 million	Subject to minimum of 65%
7.	200 Million and above	Subject to minimum of 70%
N= Number allocated V= VLR figure		

3. This is issued with the approval of comptent authority.

Skgarg 22.06.2022

(Sanchit Kumar Garg)
Assistant Director General (AS-III)
Email id: sanchitk.garg@gov.in

Copy forwarded for information and necessary action to:

1. Secretary, TRAI.
2. DG, COAI.
3. CMD BSNL/ CMD MTNL.
4. Director (P&N), DoT, HQ with request to circulate the sanction to related LSA Cell.
5. A copy for upload on DoT Website.

Annexure-V
223

Ministry of Communications & IT
Department of Telecommunications
Access Services Wing
Sanchar Bhawan, Ashoka Road, 20, New Delhi-110001

No. 16-4/2011-AS.III/ Vol I/51 Dated : 22-02-2012

To

All Access Service Providers.

Subject: Requisition for SP Codes from access service providers-regarding 1/387

16-7/2015-AS-III(Part I)

Requests for allocation of SP codes are received in DoT. While processing the requests, following have been observed:

(i) Access service providers are using different terms for network elements e.g. MSS, GCS, MSC(GMSC), MGW, MGC etc.

(ii) Only some access service providers are furnishing the database for earlier allocated SP codes along with the application.

(iii)From the requests received it is not evident whether the earlier allocated SP codes have been exhausted or not.

2. Due to the above, repeated clarifications are required from access service providers and it takes lot of time in processing the requisitions.

3. Hence the following has been decided:

(i) Hence forth in the requisitions for SP codes, the term 'MSC' will be used for basically the older version of switching system where both user part and the control part exist on single node. For newer version where MSC is split into MSC Server and MGW, the SP code will be allocated for signaling controller, which is part of MSC Server. A common term Media-Gateway Controller (MGC) should be used for this purpose. SP codes will not be allocated for MGW.

(ii) The requisition for a fresh SP code should be submitted along with the following information:

(a) Name of LSA .

(b) Name of network element for which the SP code is required .

(c) Address where the said network element is installed/proposed to be installed.

... case of requisition for change of address of previously allocated SP code, the DoT letter vide which the code was allocated should also be attached.

(iv) The requisition for (a) fresh SP code and (b) for change in location of SP code should have the **database for already allocated SP codes** for that LSA in a excel sheet in the following format as an enclosure:

Name of Service provider	Name of LSA	SP Code	Name of network element (NE) to which the code was allocated	The address for which the said SP code was allocated	DoT Letter No. and date	Is the said network element still working and at the same address	Final status, In use = 1, Other = 0

16-7/2015-AS-III(Part)

2/387

A soft copy of the database may also be provided for record

(v) An undertaking should be given in the requisition that all the previously allocated SP codes are in use i.e. have been assigned to network elements which are presently in operation (i.e. are live).

(vi) An allocated SP codes should be utilized within a period of 6-months from the date of allocation. If the allocated SP codes are not utilized within this period, then the same should be reported to DoT and surrendered.

Similarly, if a network element to which SP code was allocated has been de-commissioned and its use is not planned within a period of next 6-months, the allocated SP code should be surrendered.

(vii) An annual return on utilization of SP codes in the format given in para (iv) above should be submitted (soft and hard copy both) by each TSP, in the month of April for the previous financial year.

4. All access service providers are therefore requested to follow the procedure and instructions outlined herein above.

22/2/2012

O/C

S.K. Sinha
S.O. (AS-III)

Copy to : Dir(IT) for uploading on DoT web-site

Annexure- VI

Government of India
Ministry of Communication & IT
Department of Telecommunications
(AS Cell)

No.16-7/2012-AS-III/53/30 **Dated: 22/01/2016**

To,
All Access Service Licensees/NLD/ILD Licensee

Subject: Amendment to numbering plan for International Free Phone Service (IFS).

Keeping in view of Multi operator ILD scenario and to ensure proper working of IFS for proper conduct of telegraphs and in exercise of power conferred under clause 3.21 of National Numbering Plan (NNP) 2003, the following shall be the revised dialing plan with effect from 1st February 2016:

000	+	800	+	IIC(3-digits)	+	XXXX(0000-9999)
Access code for International VAS		*Code for International Free Phone Service*		*IFS Access Provider Identity code. (IIC to be allocated by DoT to Authorized IFS Access Providers)*		*Subscriber number (To be assigned by IFS Access Providers)*

2. The Definitions referred in the above dialing plan are as per ITU-TE.152 and are as follows:

(i) 2.1 **IFS Access Provider:** IFS Access provider is a Recognized Operating Agency (ROA) in the country of origin of the call which is responsible for ensuring the establishment of access to the international freephone number in that country. ILD operator are IFS Access providers in India.

(ii) 2.2 **IFS Provider**: IFS provider is a Recognized Operating Agency (ROA) which provides the international freephone service to the IFS customer and is responsible for all relations with the IFS customer concerning the international freephone service. The Recognized Operating Agency (ROA) is the recognized Telecom service provider in its respective country.

(iii) 2.3 **IFS Customer:** The individual or entity who (or which) obtains an international freephone service from an IFS service provider, and is responsible for payment of all charges due to that IFS service provider.

(iv) 2.4 **IFS Caller**: The person who places a call to an international freephone number.

(v) 2.5 **Routing number:** A number format specified by the IFS service provider which identifies the called IFS customer and the originating country for routing purposes. The

international freephone number dialed by the IFS caller is translated in the country of call origination to this special routing number before the call is transferred to the IFS service provider.

3. IFS Dialing Scheme explanation

(i) To begin with, IFS access provider Identity code (IIC) shall be same as Carrier Access Code (CAC)/International Carrier Identification Code (ICIC) already allotted to ILD operators in India by DoT, prefixed with 0. Subsequent allotment of additional IIC codes will be made by DoT. Analysis of 3-digits IFS Access Provider Access Code (IIC) shall identity IFS Access Provider who has assigned IFS Access Number to the IFS Customer.

(ii) Subscriber Number 'XXXX' will be allotted by IFS Access Provider. The same number will not be repeated in any other country.

(iii) IFS Access provider shall abide by the provisions/scope of the services in the relevant licensee/regulations.

4. The amendment comes into effect from 01/02/2016.

5. Existing dialing plan prescribed vide Letter No. 6-3/92-PHM/PHT Vol. II dated 17.8.1999 shall coexist with the new plan for existing IFS customers.

6. Licensor reserves the right to amend NNP 2003 as required.

(Dhananjay Kumar Ranjan)
Director(AS-III)

Copy To:

1. **Sr. DDG (TEC), New Delhi**
2. **Secretary, TRAI, New Delhi**
3. **DDG(CS/DS/TERM), DoT HQ New Delhi**
4. **Director (IT) for uploading on DoT website under UL & access services & Carrier Services head.**

Annexures – II

[Refer para. 2.20 of Chapter II]

Levels/ Sub-Levels, LSA/ Area of Operation, And Number of Fixed-Line Subscribers as on 30.09.2024

Sl. No.	Levels/ Sub-levels	TSP	Area of Operation#	Number of subscribers as on 30th September 2024 (in million)
1	'2'	BSNL/ MTNL	All India/ Delhi & Mumbai	8.207
2	'4'	Bharti Airtel	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Odisha, Punjab, Rajasthan, Tamil Nadu (including Chennai), UP-East, UP-West and West Bengal.	9.322
3	'30' '33' '37' to '39' '51' & '52'	Reliance Comm. Ltd.$	Andhra Pradesh, Delhi, Gujarat, Karnataka, Kerala, Kolkata, Maharashtra, Mumbai, Punjab, Rajasthan, Tamil Nadu (including Chennai), UP East, and West Bengal	0.118
4	'37' '50' '51, '71' '795'	Vodafone Idea Ltd.$	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, North-East, Odisha, Punjab, Rajasthan, Tamil Nadu (including Chennai), UP-East, UP-West and West Bengal.	0.865
5	'50' to '54'	Quadrant Tele-ventures Ltd.$	Punjab	0.356
6	'50' to '59' '797'	Andhra Pradesh State FiberNet Ltd.$	Andhra Pradesh	0.638

7	'60' to '69'	Tata Teleservices Ltd.$	Andhra Pradesh, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, Odisha, Punjab, Rajasthan, Tamil Nadu (including Chennai), UP-East, UP-West and West Bengal.	2.363
8	'31', '32', '33', '35', '36', '37', '52', '796'	Reliance Jio Infocomm Ltd.$	Andhra Pradesh, Assam, Bihar, Delhi, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Karnataka, Kerala, Kolkata, Madhya Pradesh, Maharashtra, Mumbai, North-East, Odisha, Punjab, Rajasthan, Tamil Nadu (including Chennai), UP-East, UP-West and West Bengal.	15.000
9	'56'	V-CON Mobile & Infra Ltd.	Punjab	0.064
Total				36.932

- In the table above, LSA/ Area of Operation where respective TSPs provide Fixed-line Access services is mentioned. However, presently Levels/ Sub-levels are allocated on SDCA-wise to TSPs. It may be noted TSPs may not be providing access/ fixed-line service in all the SDCA in any given LSAs.

$ - All the sub-levels listed against the TSPs may not be allocated for all SDCAs. In other words, different LSA/ SDCA may have different sub-levels from the list of sub-levels allocated to the TSPs.

Annexure -III

[Refer para. 2.20 of Chapter II]

Spare Sub-levels available for future allocation in 12 SDCAs with higher utilization

SDCA CODE	SDCA NAME	LSA	COMBINED DATA of ALL TSPs		Total numbers allocated by all TSPs as on 31.08.2024# (in lakhs)	Total TI resources generated for TSP (in lakhs)
			Sub-levels allocated by DoT to all TSPs till 31.08.2024#	Spare sub-level available for future allocation		
8554	ANANTAPUR	AP	2,4,31,35,796,60,61,64,65,66,67,68,69,71,795,51,52,53,54,55,56,57,58,59,797,30,33,39,32,36,38	34,37,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,798,799, 50	0.552	1.37
6542	BOKARO	BR	2,4,31,35,36,796,60,61,63,64,65,66,67,68,69,71,32,37	30,33,34,38,39,50,51,52,53,54,55,56,57,58,59,62,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	0.524	2.49
124	GURGAON	HA	2,4,31,35,36,796,60,61,62,63,64,65,66,67,68,69,71,50,51,795,793, 30, 33, 37, 38	32,34,39,52,53,54,55,56,57,58,59,70,72,73,74,75,76,77,78,790,791,792,794,797,798,799	5.130	19.7
7752	BILASPUR	MP	2,4,31,35,796,60,61,63,64,65,66,67,68,69,71,32,33,36,795	30,34,37,38,39,50,51,52,53,54,55,56,57,58,59,62,70,72,73,74,75,76,77,78,790,791,792,793,794,797,798,799	0.345	2.48
172	CHANDIGARH	PB	2,4,31,35,796,60,61,63,64,65,66,67,68,69,71,50,51,52,53,54,56,30,33,38,39,	32,34,36,37,55,57,58,59,62,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	3.752	17.9
1765	NABHA	PB	2,4,31,35,796,60,61,63,64,65,66,67,68,69,71,50,51,52,53,54,30,56,33,38,39	32,34,36,37,55,57,58,59,62,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	0.242	1.79

1762	RAJPURA	PB	2,4,31,35,796,60,61,63,64,65,66,67,68,69,71,50,51,52,53,54,30,33,39,56,32,36,37,38	34,55,57,58,59,62,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	0.524	1.49
1482	BHILWARA	RJ	2,4,31,35,796,60,61,64,65,66,67,68,69,71,30,32,36,795,39	33,34,37,38,50,51,52,53,54,55,56,57,58,59,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,797,798,799	0.329	2.48
522	LUCKNOW	UPE	2,4,31,35,796,60,61,64,65,66,67,68,69,71,71,33,36,795	32,34,37,38,50,51,52,53,54,55,56,57,58,59,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,797,798,799, 30,39	3.365	26.8
120	GHAZIABAD+DADRI	UPW	2,4,31,35,36,796,60,61,64,65,66,67,68,69,71,32,52,50,51,30,33,37,38,39	34,53,54,55,56,57,58,59,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	6.637	18.9
1334	ROORKEE-II (HARDWAR)	UPW	2,4,31,35,796,60,61,64,65,66,67,68,69,71,71,32,36,37,795	30,33,34,38,39,50,51,52,53,54,55,56,57,58,59,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,797,798,799	0.409	2.58
3222	KHARAGPUR	WB	2,4,31,35,796,60,61,64,65,66,67,68,69,71,71,32,36,30,33,39	34,37,38,50,51,52,53,54,55,56,57,58,59,62,63,70,72,73,74,75,76,77,78,790,791,792,793,794,795,797,798,799	0.417	2.39

#Based on the Data provided by the TSPs as of 31.08.2024

Annexure – IV

[Refer para. 2.21 & 2.58 of Chapter II]

Sub-levels of the levels allocated to one of the TSP with 'NIL' utilization that can be withdrawn and allocated to other TSPs- *illustrated for Ghaziabad and Gurgaon (*TSP's Spare Sub-level Data)

SDCA CODE	SDCA NAME	LDCA NAME	SERVICE AREA	TSP			
				Sub-level (s) allocated to TSPs by DoT	Total numbering resource capacity available based on the sub-level allocated to TSP	Total numbers of Subscribers reported as on 31.10.2023	% Utilization (
124	GURGAON	GURGAON	HA	21	1,00,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	200	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	202	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	203	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	204	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	205	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	206	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	208	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	209	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	210	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	211	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	212	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	213	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	214	10,000	**0**	**0.00%**

124	GURGAON	GURGAON	HA	215	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	216	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	217	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	218	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	219	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	224	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	240	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	241	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	242	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	244	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	247	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	248	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	249	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	250	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	251	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	252	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	253	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	260	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	261	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	276	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	279	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	290	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	291	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	292	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	293	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	294	10,000	**0**	**0.00%**
124	GURGAON	GURGAON	HA	295	10,000	**0**	**0.00%**

Total TIs available from unopened sub-levels of the level allocated to TSP for GURUGAON SDCA					**5,00,000**		
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	21	1,00,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	201	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	202	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	203	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	204	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	205	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	206	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	207	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	208	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	209	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	210	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	211	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	212	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	213	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	214	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	215	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	216	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	217	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	218	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	219	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	223	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	224	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	225	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	226	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	227	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	228	10,000	**0**	**0.00%**

120	GHAZIABAD+DADRI	GHAZIABAD	UPW	229	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	231	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	237	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	238	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	290	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	291	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	292	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	293	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	294	10,000	**0**	**0.00%**
120	GHAZIABAD+DADRI	GHAZIABAD	UPW	295	10,000	**0**	**0.00%**
Total TIs available from unopened sub-levels of the level allocated to TSP for GHAZIABAD SDCA					**4,50,000**		

Annexure – V

[Refer para. 2.21 of Chapter II]

Government of India
Department of Telecommunications
(Access Services Wing)
20, Ashoka Road New Delhi-110001

No. 16-08/2024-AS-III/ 73 Dated: 09.07.2024

To,

All Access Service Providers

Subject: Withdrawal of fixed line series in Manglagiri (SDCA code 8645) in Andhra Pradesh LSA.

Kind reference is invited to fixed line codes allocated by DoT to Manglagiri SDCA, Andhra Pradesh LSA. Due to inefficient/non-utilization of codes, it has been decided to withdraw fixed line codes as detailed below: -

S.no.	TSP	Wireline code/sub level
01	BSNL	20
		21
		22
		26
02	Airtel	41
		42
		43
		44
		47
		48
		49
03	APFSL	50
		55
		56
		57
		58
		59

2. This is issued with the approval of competent authority.

09/07/2024

(Trilok Chandra)
Director (AS-III)
Phone No: 011-23372063

Copy for kind information and necessary action, if any, to:-

1. Secretary, TRAI.
2. CMD MTNL/CMD BSNL.
3. DG, COAI.
4. Director (T), DGT, HQ.
5. Additional DG(T), Andhra Pradesh LSA.
6. Sr. Program Manager, CMS-NRO, C-DoT, Mehrauli, Delhi-30.
7. A copy for upload on DoT website.

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road New Delhi-110001

No. 16-01/2024-AS-III/ 74 Dated: 10.07.2024

To,
M/s Vodafone Idea Ltd.

Subject:- Allocation of additional Wireline Code to M/s Vodafone Idea Ltd. for MANGLAGIRI SDCA, Andhra Pradesh LSA

Considering the request of M/s Vodafone Idea Ltd. for allocation of numbering level for wireline services, it has been decided to allocate level as follows: -

S. No.	Name of SDCA	SDCA code	Name of LSA	Wire-line Code allotted
1.	MANGLAGIRI	8645	Andhra Pradesh	**59**

2. The above wireline code was earlier allocated to APFSL and has been withdrawn with effect from 09.07.2024(copy attached). TSPs are requested to make amendment in call routing system accordingly.

3. This is issued with the approval of competent authority.

10/07/2024
(Trilok Chandra)
Director (AS-III)
Ph 011-23372063

Copy for kind information and necessary action, if any, to:

1. Secretary, TRAI.
2. CMD MTNL/CMD BSNL.
3. DG, COAI.
4. Director (T), DGT, HQ.
5. Additional DG(T), Andhra Pradesh LSA.
6. Sr. Program Manager, CMS-NRO, C-DoT, Mehrauli, Delhi-30.
7. A copy for upload on DoT website.

Government of India
Ministry of Communications
Department of Telecommunications
Access Services Wing
20, Ashoka Road New Delhi-110001

No. 16-06/2024-AS-III/ 111

Date: 23.09.2024

To

M/s Tata Teleservices Limited (TTSL).

Subject: - Allocation of additional Wireline Access Service Code to M/s Tata Teleservices Limited (TTSL).

Considering the request of M/s Tata Teleservices Limited (TTSL) for allocation of numbering levels for wireline services, it has been decided to allocate levels as follows: -

S. No.	Name of SDCA	SDCA Code	Name of LSA	Wireline Code allotted
1.	Mangalagiri	8645	Andhra Pradesh	58

2. This is issued with the approval of competent authority.

Prabha 23/9/2024

(Prabha Ji)
Director (AS-III)
Ph 011-23372732

Copy for kind information and necessary action, if any, to:

1. Secretary, TRAI.
2. CMD MTNL/CMD BSNL.
3. DG, COAI.
4. Director (T), DGT HQ (respective LSA field may be asked to coordinate with respective Nodal officers and TSPs for implementation of helpline, as and when approached).
5. All Access Service Providers.
6. All MNP Licensee.
7. Sr. Program Manager, CMS-NRO, C-DoT, Mehrauli, Delhi-30.
8. A copy for upload on DoT website.

Annexure – VI

[Refer para. 2.24 of Chapter II]

Fixed-line codes, created using sub-levels allocated to TSPs (i.e., SDCA code + sub-levels allocated to TSPs), will be available with TSPs for allocating TIs within the 'entire' LSA- *illustrated for one of the TSPs in the UP West LSA*

SDCA Name in UP West LSA	SDCA CODE in UP- West LSA	Sub-level (s) allocated to TSP*	New codes created after implementing the 10-digit LSA-based numbering scheme. (SDCA Code + Sub-level (allocated to TSP)	Total numbers allocated by TSP (in lakhs)*	% Utilization*	Total TI resources generated for TSP (in lakhs)
ACHHNERA	**5613**	31, 35, 796	561331, 561335, 5613796	0	0%	0.21
AGRA	**562**	31, 35, 796	56231, 56235, 562796	0.34415	16%	2.1
FEROZABAD	**5612**	31, 35, 796	561231, 561235, 5612796	0.00147	1%	0.21
JARAR	**5614**	31, 35, 796	561431, 561435, 5614796	0	0%	0.21
ALIGARH	**571**	31, 35, 796	57131, 57135, 571796	0.3342	16%	2.1
ATRAULI	**5723**	31, 35, 796	572331, 572335, 5723796	0	0%	0.21
HATHRAS	**5722**	31, 35, 796	572231, 572235, 5722796	0.01364	6%	0.21
KHAIR	**5724**	31, 35, 796	572431, 572435, 5724796	0	0%	0.21
SIKANDRA RAO	**5721**	31, 35, 796	572131, 572135, 5721796	0	0%	0.21
BADAUN	**5832**	31, 35, 796	583231, 583235, 5832796	0.00497	2%	0.21
BISAULI	**5834**	31, 35, 796	583431, 583435, 5834796	0	0%	0.21

DATAGANJ	**5831**	31, 35, 796	583131, 583135, 5831796	0	0%	0.21
GUNNAUR	**5836**	31, 35, 796	583631, 583635, 5836796	0	0%	0.21
SAHASWAN	**5833**	31, 35, 796	583331, 583335, 5833796	0	0%	0.21
AONLA -I	**5823**	31, 35, 796	582331, 582335, 5823796	0.0001	0%	0.21
AONLA-II (RAMNAGAR)	**5824**	31, 35, 796	582431, 582435, 5824796	0	0%	0.21
BAHERI	**5822**	31, 35, 796	582231, 582235, 5822796	0	0%	0.21
BAREILLY	**581**	31, 35, 796	58131, 58135, 581796	0.3544	17%	2.1
NAWABGANJ	**5825**	31, 35, 796	582531, 582535, 5825796	0	0%	0.21
PITAMBERPUR	**5821**	31, 35, 796	582131, 582135, 5821796	0	0%	0.21
BIJNORE-I	**1342**	31, 35, 796	134231, 134235, 1342796	0.03926	19%	0.21
BIJNORE-II (CHANDPUR)	**1345**	31, 35, 796	134531, 134535, 1345796	0.02082	10%	0.21
DHAMPUR	**1344**	31, 35, 796	134431, 134435, 1344796	0.00239	1%	0.21
NAGINA	**1343**	31, 35, 796	134331, 134335, 1343796	0	0%	0.21
NAJIBABAD	**1341**	31, 35, 796	134131, 134135, 1341796	0	0%	0.21
ALIGANJ (GANJDUNDWARA)	**5740**	31, 35, 796	574031, 574035, 5740796	0	0%	0.21
ETAH	**5742**	31, 35, 796	574231, 574235, 5742796	0.01403	7%	0.21
JALESAR	**5745**	31, 35, 796	574531, 574535, 5745796	0	0%	0.21
KASGANJ	**5744**	31, 35, 796	574431, 574435, 5744796	0	0%	0.21
BULANDSHAHR	**5732**	31, 35, 796	573231, 573235, 5732796	0.05894	28%	0.21
DEBAI	**5734**	31, 35, 796	573431, 573435, 5734796	0.00065	0%	0.21
GARHMUKTESHWAR	**5731**	31, 35, 796	573131, 573135, 5731796	0.0001	0%	0.21

GHAZIABAD+DADRI	**120**	31, 35, 36, 796	12031, 12035, 12036, 120796	2.6009	84%	3.1
HAPUR	**122**	31, 35, 796	12231, 12235, 122796	0.09935	5%	2.1
KHURJA	**5738**	31, 35, 796	573831, 573835, 5738796	0.02156	10%	0.21
MODINAGAR	**1232**	31, 35, 796	123231, 123235, 1232796	0.06527	31%	0.21
PAHASU	**5733**	31, 35, 796	573331, 573335, 5733796	0	0%	0.21
SIKANDRABAD	**5735**	31, 35, 796	573531, 573535, 5735796	0.03421	16%	0.21
SIYANA	**5736**	31, 35, 796	573631, 573635, 5736796	0	0%	0.21
CHHATA (KOSIKALAN)	**5662**	31, 35, 796	566231, 566235, 5662796	0.00255	1%	0.21
MANT (VRINDAVAN)	**5664**	31, 35, 796	566431, 566435, 5664796	0	0%	0.21
MATHURA	**565**	31, 35, 796	56531, 56535, 565796	0.10505	5%	2.1
SADABAD	**5661**	31, 35, 796	566131, 566135, 5661796	0	0%	0.21
BAGHPAT-II (BARAUT)	**1234**	31, 35, 796	123431, 123435, 1234796	0	0%	0.21
MAWANA	**1233**	31, 35, 796	123331, 123335, 1233796	0.0001	0%	0.21
MEERUT	**121**	31, 35, 796	12131, 12135, 121796	0.4204	20%	2.1
SARDHANA	**1237**	31, 35, 796	123731, 123735, 1237796	0	0%	0.21
AMROHA	**5922**	31, 35, 796	592231, 592235, 5922796	0.00759	4%	0.21
BILARI	**5921**	31, 35, 796	592131, 592135, 5921796	0.04001	19%	0.21
HASANPUR	**5924**	31, 35, 796	592431, 592435, 5924796	0.00903	4%	0.21
MORADABAD	**591**	31, 35, 796	59131, 59135, 591796	0.18591	9%	2.1
SAMBHAL	**5923**	31, 35, 796	592331, 592335, 5923796	0.00128	1%	0.21
BUDHANA	**1392**	31, 35, 796	139231, 139235, 1392796	0	0%	0.21
JANSATH (KHATAULI)	**1396**	31, 35, 796	139631, 139635, 1396796	0	0%	0.21

KAIRANA (SHAMLI)	**1398**	31, 35, 796	139831, 139835, 1398796	0	0%	0.21
MUZAFFAR NAGAR	**131**	31, 35, 796	13131, 13135, 131796	0.06858	3%	2.1
BISALPUR	**5881**	31, 35, 796	588131, 588135, 5881796	0	0%	0.21
PILIBHIT	**5882**	31, 35, 796	588231, 588235, 5882796	0.00262	1%	0.21
PURANPUR	**5880**	31, 35, 796	588031, 588035, 5880796	0	0%	0.21
RAMPUR	**595**	31, 35, 796	59531, 59535, 595796	0.02559	1%	2.1
SHAHABAD	**5960**	31, 35, 796	596031, 596035, 5960796	0	0%	0.21
DEOBAND	**1336**	31, 35, 796	133631, 133635, 1336796	0	0%	0.21
NAKUR (GANGOH)	**1331**	31, 35, 796	133131, 133135, 1331796	0.00027	0%	0.21
SAHARANPUR	**132**	31, 35, 796	13231, 13235, 132796	0.21029	10%	2.1
ALMORA	**5962**	31, 35, 796	596231, 596235, 5962796	0.00136	1%	0.21
BAGESHWAR	**5963**	31, 35, 796	596331, 596335, 5963796	0	0%	0.21
CHAMPAWAT	**5965**	31, 35, 796	596531, 596535, 5965796	0	0%	0.21
DHARCHULA	**5967**	31, 35, 796	596731, 596735, 5967796	0	0%	0.21
MUNSIARI	**5961**	31, 35, 796	596131, 596135, 5961796	0	0%	0.21
PITHORAGARH	**5964**	31, 35, 796	596431, 596435, 5964796	0.00085	0%	0.21
RANIKHET	**5966**	31, 35, 796	596631, 596635, 5966796	0.00091	0%	0.21
CHAKRATA (DAKPATHER)	**1360**	31, 35, 796	136031, 136035, 1360796	0.01639	8%	0.21
DEHRADUN	**135**	31, 35, 796	13531, 13535, 135796	0.97541	46%	2.1
CHAMOLI	**1372**	31, 35, 796	137231, 137235, 1372796	0	0%	0.21
JOSHIMATH-I	**1389**	31, 35, 796	138931, 138935, 1389796	0	0%	0.21

JOSHIMATH-II (BADRINATH)	**1381**	31, 35, 796	138131, 138135, 1381796	0	0%	0.21
KARAN PRAYAG	**1363**	31, 35, 796	136331, 136335, 1363796	0	0%	0.21
LANSDOWN-I	**1386**	31, 35, 796	138631, 138635, 1386796	0	0%	0.21
LANSDOWN-II (KOTDWARA)	**1382**	31, 35, 796	138231, 138235, 1382796	0.00924	4%	0.21
LANSDOWN-III (SYUNSI)	**1348**	31, 35, 796	134831, 134835, 1348796	0	0%	0.21
PAURI-I	**1368**	31, 35, 796	136831, 136835, 1368796	0.00022	0%	0.21
PAURI-II (BUBAKHAL)	**1346**	31, 35, 796	134631, 134635, 1346796	0.00137	1%	0.21
UKHIMATH (GUPTKASHI)	**1364**	31, 35, 796	136431, 136435, 1364796	0	0%	0.21
HALDWANI-I	**5946**	31, 35, 796	594631, 594635, 5946796	0.10135	48%	0.21
HALDWANI-II (CHORGALIAN)	**5945**	31, 35, 796	594531, 594535, 5945796	0	0%	0.21
KASHIPUR	**5947**	31, 35, 796	594731, 594735, 5947796	0.08539	41%	0.21
KHATIMA	**5943**	31, 35, 796	594331, 594335, 5943796	0.00161	1%	0.21
KHATIMA-II (SITARGANJ)	**5948**	31, 35, 796	594831, 594835, 5948796	0.0018	1%	0.21
KICHHA-I (RUDRAPUR)	**5944**	31, 35, 796	594431, 594435, 5944796	0.13446	64%	0.21
KICHHA-II (BAZPUR)	**5949**	31, 35, 796	594931, 594935, 5949796	0	0%	0.21
NAINITAL	**5942**	31, 35, 796	594231, 594235, 5942796	0.00633	3%	0.21
ROORKEE-I	**1332**	31, 35, 36, 796	133231, 133235, 133236, 1332796	0.19227	62%	0.31
ROORKEE-II (HARDWAR)	**1334**	31, 35, 796	133431, 133435, 1334796	0.17351	83%	0.21
BHATWARI-I (UTTARKASHI)	**1374**	31, 35, 796	137431, 137435, 1374796	0	0%	0.21
BHATWARI-I (GANGOTRI)	**1377**	31, 35, 796	137731, 137735, 1377796	0	0%	0.21

DEOPRAYAG-I	**1378**	31, 35, 796	137831, 137835, 1378796	0.00776	4%	0.21
DEOPRAYAG-II (JAKHOLI)	**1370**	31, 35, 796	137031, 137035, 1370796	0	0%	0.21
DUNDA	**1371**	31, 35, 796	137131, 137135, 1371796	0	0%	0.21
PARTAPNAGAR	**1379**	31, 35, 796	137931, 137935, 1379796	0	0%	0.21
PUROLA	**1373**	31, 35, 796	137331, 137335, 1373796	0	0%	0.21
RAJGARHI	**1375**	31, 35, 796	137531, 137535, 1375796	0	0%	0.21
TEHRI	**1376**	31, 35, 796	137631, 137635, 1376796	0	0%	0.21
A total of 45.2 lakh TI resources will be unlocked for one of the TSPS for the entire UP-West LSA upon implementation of the 10-digit LSA-based closed numbering scheme				**6.79991**		**45.2**
Overall % utilization for UP-West LSA (after implementing the 10-digit LSA-based numbering scheme				**15.04%**		

*As per data provided by the Department of Telecommunication (DoT)

Fixed-line codes, created using SDCA codes and sub-levels allocated to TSPs (i.e., SDCA code + sub-levels allocated to TSPs), will be available with TSPs for allocating TIs within the 'entire' LSA- *illustrated for one of the TSPs in the Haryana LSA*

SDCA Name in Haryana LSA	SDCA CODE in Haryana LSA	Sub-level (s) allocated to TSP*	New codes created after implementing the 10-digit LSA-based numbering scheme (SDCA Code + Sub-level (allocated to TSP)	Total numbers allocated by TSP (in lakhs)*	% Utilization*	Total TI resources generated for TSP (in lakhs)
AMBALA	**171**	31, 35, 796	17131, 17135, 171796	0.06316	3%	2.1
BARARA	**1731**	31, 35, 796	173131, 173135, 1731796	0	0%	0.21
CHAAHARAULI	**1735**	31, 35, 796	173531, 173535, 1735796	0	0%	0.21
JAGADHARI	**1732**	31, 35, 796	173231, 173235, 1732796	0.11963	57%	0.21
KALKA	**1733**	31, 35, 796	173331, 173335, 1733796	0.0009	0%	0.21
NARAINGARH	**1734**	31, 35, 796	173431, 173435, 1734796	0.0003	0%	0.21
FARIDABAD	**129**	31, 35, 36, 796	12931, 12935, 12936, 129796	0.35275	11%	3.1
FEROJPUR	**1268**	31, 35, 796	126831, 126835, 1268796	0.00004	0%	0.21
GURGAON	**124**	31, 35, 36, 796	12431, 12435, 12436, 124796	1.03656	33%	3.1
NUH	**1267**	31, 35, 796	126731, 126735, 1267796	0.00008	0%	0.21
PALWAL	**1275**	31, 35, 796	127531, 127535, 1275796	0.01293	6%	0.21
ADAMPUR MANDI	**1669**	31, 35, 796	166931, 166935, 1669796	0	0%	0.21
BARWALA	**1693**	31, 35, 796	169331, 169335, 1693796	0.00046	0%	0.21
DABWALI	**1668**	31, 35, 796	166831, 166835, 1668796	0	0%	0.21
ELLENABAD	**1698**	31, 35, 796	169831, 169835, 1698796	0	0%	0.21
FATEHABAD	**1667**	31, 35, 796	166731, 166735, 1667796	0	0%	0.21

HANSI	**1663**	31, 35, 796	166331, 166335, 1663796	0.00054	0%	0.21
HISSAR	**1662**	31, 35, 796	166231, 166235, 1662796	0.10791	51%	0.21
KALANWALI	**1696**	31, 35, 796	169631, 169635, 1696796	0	0%	0.21
RATIA	**1697**	31, 35, 796	169731, 169735, 1697796	0	0%	0.21
SIRSA	**1666**	31, 35, 796	166631, 166635, 1666796	0.00317	2%	0.21
TOHANA	**1692**	31, 35, 796	169231, 169235, 1692796	0	0%	0.21
JIND	**1681**	31, 35, 796	168131, 168135, 1681796	0.03204	15%	0.21
JULANA	**1683**	31, 35, 796	168331, 168335, 1683796	0	0%	0.21
NARWANA	**1684**	31, 35, 796	168431, 168435, 1684796	0	0%	0.21
SAFIDON	**1686**	31, 35, 796	168631, 168635, 1686796	0	0%	0.21
ASSANDH	**1749**	31, 35, 796	174931, 174935, 1749796	0	0%	0.21
CHEEKA	**1743**	31, 35, 796	174331, 174335, 1743796	0.00004	0%	0.21
GHARAUNDA	**1748**	31, 35, 796	174831, 174835, 1748796	0	0%	0.21
KAITHAL	**1746**	31, 35, 796	174631, 174635, 1746796	0.01101	5%	0.21
KARNAL	**184**	31, 35, 796	18431, 18435, 184796	0.09278	4%	2.1
KURUKSHETRA	**1744**	31, 35, 796	174431, 174435, 1744796	0.03995	19%	0.21
NILOKHERI	**1745**	31, 35, 796	174531, 174535, 1745796	0.00004	0%	0.21
PANIPAT	**180**	31, 35, 796	18031, 18035, 180796	0.13558	6%	2.1
PEHOWA	**1741**	31, 35, 796	174131, 174135, 1741796	0	0%	0.21
BAWAL	**1284**	31, 35, 796	128431, 128435, 1284796	0.00099	0%	0.21
JATUSANA	**1281**	31, 35, 796	128131, 128135, 1281796	0	0%	0.21

KOSLI	**1259**	31, 35, 796	125931, 125935, 1259796	0	0%	0.21
MOHINDERGARH	**1285**	31, 35, 796	128531, 128535, 1285796	0	0%	0.21
NARNAUL	**1282**	31, 35, 796	128231, 128235, 1282796	0.00043	0%	0.21
REWARI	**1274**	31, 35, 796	127431, 127435, 1274796	0.05117	24%	0.21
BAHADURGARH	**1276**	31, 35, 796	127631, 127635, 1276796	0.03892	19%	0.21
BAWANIKHERA	**1254**	31, 35, 796	125431, 125435, 1254796	0	0%	0.21
BHIWANI	**1664**	31, 35, 796	166431, 166435, 1664796	0.03031	14%	0.21
CHARKHIDADRI	**1250**	31, 35, 796	125031, 125035, 1250796	0.00052	0%	0.21
JHAJJAR	**1251**	31, 35, 796	125131, 125135, 1251796	0.00348	2%	0.21
KALANAUR	**1258**	31, 35, 796	125831, 125835, 1258796	0	0%	0.21
LOHARU	**1252**	31, 35, 796	125231, 125235, 1252796	0	0%	0.21
MEHAM	**1257**	31, 35, 796	125731, 125735, 1257796	0.00004	0%	0.21
ROHTAK	**1262**	31, 35, 796	126231, 126235, 1262796	0.07662	36%	0.21
SIWANI	**1255**	31, 35, 796	125531, 125535, 1255796	0	0%	0.21
TOHSHAM	**1253**	31, 35, 796	125331, 125335, 1253796	0	0%	0.21
GOHANA	**1263**	31, 35, 796	126331, 26335, 263796	0	0%	0.21
SONIPAT	**130**	31, 35, 796	13031, 13035, 130796	0.12165	6%	2.1
A total of 24.68 lakh TI resources will be unlocked for one of the TSPS for the entire Haryana LSA upon implementation of the 10-digit LSA-based closed numbering scheme				**2.334**		**24.68**
Overall % utilization for Haryana LSA (upon implementation of the 10-digit LSA-based numbering scheme)				**9.46%**		

*As per data provided by the Department of Telecommunication (DoT)

Annexure –VII

[Refer para. 2.25 of Chapter II]

Fixed line codes created using Spare Sub-levels (i.e. SDCA codes + Spare Sub-levels) and the corresponding TI resources generated - *illustrated for Haryana LSA*

SDCA CODE	SDCA NAME	COMBINED DATA of ALL TSPs (Haryana LSA)			Total TI capacity based on Spare Sub-levels available for allocation (in lakhs)
		All the sub-levels that have been allocated to various TSPs by DoT*	Spare Sub-levels available for allocation to TSPs*	New codes created from Spare Sub Levels after implementing the LSA based numbering scheme	
171	AMBALA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	17130, 17132, 17133, 17134, 17136, 17137, 17138, 17139, 17150, 17151, 17152, 17153, 17154, 17155, 17156, 17157, 17158, 17159, 17170, 17172, 17173, 17174, 17175, 17176, 17177, 17178, 171790, 171791, 171792, 171793, 171794, 171795, 171797, 171798, 171799	26.9
1731	BARARA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	173130, 173132, 173133, 173134, 173136, 173137, 173138, 173139, 173150, 173151, 173152, 173153, 173154, 173155, 173156, 173157, 173158, 173159, 173170, 173172, 173173, 173174, 173175, 173176, 173177, 173178, 1731790, 1731791, 1731792, 1731793, 1731794, 1731795, 1731797, 1731798, 1731799	2.69
1735	CHAAHARAULI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	173530, 173532, 173533, 173534, 173536, 173537, 173538, 173539, 173550, 173551, 173552, 173553, 173554, 173555, 173556, 173557, 173558, 173559, 173570, 173572, 173573, 173574, 173575, 173576, 173577, 173578, 1735790, 1735791, 1735792, 1735793, 1735794, 1735795, 1735797, 1735798, 1735799	2.69

1732	JAGADHARI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	173230, 173232, 173233, 173234, 173236, 173237, 173238, 173239, 173250, 173251, 173252, 173253, 173254, 173255, 173256, 173257, 173258, 173259, 173270, 173272, 173273, 173274, 173275, 173276, 173277, 173278, 1732790, 1732791, 1732792, 1732793, 1732794, 1732795, 1732797, 1732798, 1732799	2.69
1733	KALKA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	173330, 173332, 173333, 173334, 173336, 173337, 173338, 173339, 173350, 173351, 173352, 173353, 173354, 173355, 173356, 173357, 173358, 173359, 173370, 173372, 173373, 173374, 173375, 173376, 173377, 173378, 1733790, 1733791, 1733792, 1733793, 1733794, 1733795, 1733797, 1733798, 1733799	2.69
1734	NARAINGARH	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	173430, 173432, 173433, 173434, 173436, 173437, 173438, 173439, 173450, 173451, 173452, 173453, 173454, 173455, 173456, 173457, 173458, 173459, 173470, 173472, 173473, 173474, 173475, 173476, 173477, 173478, 1734790, 1734791, 1734792, 1734793, 1734794, 1734795, 1734797, 1734798, 1734799	2.69
129	FARIDABAD	2, 4, 31, 35, 36, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	12930, 12932, 12933, 12934, 12937, 12938, 12939, 12950, 12951, 12952, 12953, 12954, 12955, 12956, 12957, 12958, 12959, 12970, 12972, 12973, 12974, 12975, 12976, 12977, 12978, 129790, 129791, 129792, 129793, 129794, 129795, 129797, 129798, 129799	25.9
1268	FEROJPUR	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	126830, 126832, 126833, 126834, 126836, 126837, 126838, 126839, 126850, 126851, 126852, 126853, 126854, 126855, 126856, 126857, 126858, 126859, 126870, 126872, 126873, 126874, 126875, 126876, 126877, 126878, 1268790, 1268791, 1268792, 1268793, 1268794, 1268795, 1268797, 1268798, 1268799	2.69
124	GURGAON	2, 4, 31, 35, 36, 796, 60, 61, 62, 63, 64, 65, 66, 67,	30, 32, 33, 34, 37, 38, 39, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 797, 798, 799	12430, 12432, 12433, 12434, 12437, 12438, 12439, 12452, 12453, 12454, 12455, 12456, 12457, 12458, 12459, 12470, 12472, 12473, 12474, 12475, 12476, 12477, 12478, 124790, 124791, 124792, 124793, 124794, 124797, 124798, 124799	23.8

		68, 69, 71, 50, 51, 795,			
1267	NUH	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	126730, 126732, 126733, 126734, 126736, 126737, 126738, 126739, 126750, 126751, 126752, 126753, 126754, 126755, 126756, 126757, 126758, 126759, 126770, 126772, 126773, 126774, 126775, 126776, 126777, 126778, 1267790, 1267791, 1267792, 1267793, 1267794, 1267795, 1267797, 1267798, 1267799	2.69
1275	PALWAL	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	127530, 127532, 127533, 127534, 127536, 127537, 127538, 127539, 127550, 127551, 127552, 127553, 127554, 127555, 127556, 127557, 127558, 127559, 127570, 127572, 127573, 127574, 127575, 127576, 127577, 127578, 1275790, 1275791, 1275792, 1275793, 1275794, 1275795, 1275797, 1275798, 1275799	2.69
1669	ADAMPUR MANDI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166930, 166932, 166933, 166934, 166936, 166937, 166938, 166939, 166950, 166951, 166952, 166953, 166954, 166955, 166956, 166957, 166958, 166959, 166970, 166972, 166973, 166974, 166975, 166976, 166977, 166978, 1669790, 1669791, 1669792, 1669793, 1669794, 1669795, 1669797, 1669798, 1669799	2.69
1693	BARWALA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	169330, 169332, 169333, 169334, 169336, 169337, 169338, 169339, 169350, 169351, 169352, 169353, 169354, 169355, 169356, 169357, 169358, 169359, 169370, 169372, 169373, 169374, 169375, 169376, 169377, 169378, 1693790, 1693791, 1693792, 1693793, 1693794, 1693795, 1693797, 1693798, 1693799	2.69
1668	DABWALI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166830, 166832, 166833, 166834, 166836, 166837, 166838, 166839, 166850, 166851, 166852, 166853, 166854, 166855, 166856, 166857, 166858, 166859, 166870, 166872, 166873, 166874, 166875, 166876, 166877, 166878, 1668790, 1668791,	2.69

				1668792, 1668793, 1668794, 1668795, 1668797, 1668798, 1668799	
1698	ELLENABAD	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	169830, 169832, 169833, 169834, 169836, 169837, 169838, 169839, 169850, 169851, 169852, 169853, 169854, 169855, 169856, 169857, 169858, 169859, 169870, 169872, 169873, 169874, 169875, 169876, 169877, 169878, 1698790, 1698791, 1698792, 1698793, 1698794, 1698795, 1698797, 1698798, 1698799	2.69
1667	FATEHABAD	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166730, 166732, 166733, 166734, 166736, 166737, 166738, 166739, 166750, 166751, 166752, 166753, 166754, 166755, 166756, 166757, 166758, 166759, 166770, 166772, 166773, 166774, 166775, 166776, 166777, 166778, 1667790, 1667791, 1667792, 1667793, 1667794, 1667795, 1667797, 1667798, 1667799	2.69
1663	HANSI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166330, 166332, 166333, 166334, 166336, 166337, 166338, 166339, 166350, 166351, 166352, 166353, 166354, 166355, 166356, 166357, 166358, 166359, 166370, 166372, 166373, 166374, 166375, 166376, 166377, 166378, 1663790, 1663791, 1663792, 1663793, 1663794, 1663795, 1663797, 1663798, 1663799	2.69
1662	HISSAR	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166230, 166232, 166233, 166234, 166236, 166237, 166238, 166239, 166250, 166251, 166252, 166253, 166254, 166255, 166256, 166257, 166258, 166259, 166270, 166272, 166273, 166274, 166275, 166276, 166277, 166278, 1662790, 1662791, 1662792, 1662793, 1662794, 1662795, 1662797, 1662798, 1662799	2.69

1696	KALANWALI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	169630, 169632, 169633, 169634, 169636, 169637, 169638, 169639, 169650, 169651, 169652, 169653, 169654, 169655, 169656, 169657, 169658, 169659, 169670, 169672, 169673, 169674, 169675, 169676, 169677, 169678, 1696790, 1696791, 1696792, 1696793, 1696794, 1696795, 1696797, 1696798, 1696799	2.69
1697	RATIA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	169730, 169732, 169733, 169734, 169736, 169737, 169738, 169739, 169750, 169751, 169752, 169753, 169754, 169755, 169756, 169757, 169758, 169759, 169770, 169772, 169773, 169774, 169775, 169776, 169777, 169778, 1697790, 1697791, 1697792, 1697793, 1697794, 1697795, 1697797, 1697798, 1697799	2.69
1666	SIRSA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166630, 166632, 166633, 166634, 166636, 166637, 166638, 166639, 166650, 166651, 166652, 166653, 166654, 166655, 166656, 166657, 166658, 166659, 166670, 166672, 166673, 166674, 166675, 166676, 166677, 166678, 1666790, 1666791, 1666792, 1666793, 1666794, 1666795, 1666797, 1666798, 1666799	2.69
1692	TOHANA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	169230, 169232, 169233, 169234, 169236, 169237, 169238, 169239, 169250, 169251, 169252, 169253, 169254, 169255, 169256, 169257, 169258, 169259, 169270, 169272, 169273, 169274, 169275, 169276, 169277, 169278, 1692790, 1692791, 1692792, 1692793, 1692794, 1692795, 1692797, 1692798, 1692799	2.69
1681	JIND	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	168130, 168132, 168133, 168134, 168136, 168137, 168138, 168139, 168150, 168151, 168152, 168153, 168154, 168155, 168156, 168157, 168158, 168159, 168170, 168172, 168173, 168174, 168175, 168176, 168177, 168178, 1681790, 1681791, 1681792, 1681793, 1681794, 1681795, 1681797, 1681798, 1681799	2.69

1683	JULANA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	168330, 168332, 168333, 168334, 168336, 168337, 168338, 168339, 168350, 168351, 168352, 168353, 168354, 168355, 168356, 168357, 168358, 168359, 168370, 168372, 168373, 168374, 168375, 168376, 168377, 168378, 1683790, 1683791, 1683792, 1683793, 1683794, 1683795, 1683797, 1683798, 1683799	2.69
1684	NARWANA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	168430, 168432, 168433, 168434, 168436, 168437, 168438, 168439, 168450, 168451, 168452, 168453, 168454, 168455, 168456, 168457, 168458, 168459, 168470, 168472, 168473, 168474, 168475, 168476, 168477, 168478, 1684790, 1684791, 1684792, 1684793, 1684794, 1684795, 1684797, 1684798, 1684799	2.69
1686	SAFIDON	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	168630, 168632, 168633, 168634, 168636, 168637, 168638, 168639, 168650, 168651, 168652, 168653, 168654, 168655, 168656, 168657, 168658, 168659, 168670, 168672, 168673, 168674, 168675, 168676, 168677, 168678, 1686790, 1686791, 1686792, 1686793, 1686794, 1686795, 1686797, 1686798, 1686799	2.69
1749	ASSANDH	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174930, 174932, 174933, 174934, 174936, 174937, 174938, 174939, 174950, 174951, 174952, 174953, 174954, 174955, 174956, 174957, 174958, 174959, 174970, 174972, 174973, 174974, 174975, 174976, 174977, 174978, 1749790, 1749791, 1749792, 1749793, 1749794, 1749795, 1749797, 1749798, 1749799	2.69
1743	CHEEKA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174330, 174332, 174333, 174334, 174336, 174337, 174338, 174339, 174350, 174351, 174352, 174353, 174354, 174355, 174356, 174357, 174358, 174359, 174370, 174372, 174373, 174374, 174375, 174376, 174377, 174378, 1743790, 1743791, 1743792, 1743793, 1743794, 1743795, 1743797, 1743798, 1743799	2.69

1748	GHARAUNDA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174830, 174832, 174833, 174834, 174836, 174837, 174838, 174839, 174850, 174851, 174852, 174853, 174854, 174855, 174856, 174857, 174858, 174859, 174870, 174872, 174873, 174874, 174875, 174876, 174877, 174878, 1748790, 1748791, 1748792, 1748793, 1748794, 1748795, 1748797, 1748798, 1748799	2.69
1746	KAITHAL	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174630, 174632, 174633, 174634, 174636, 174637, 174638, 174639, 174650, 174651, 174652, 174653, 174654, 174655, 174656, 174657, 174658, 174659, 174670, 174672, 174673, 174674, 174675, 174676, 174677, 174678, 1746790, 1746791, 1746792, 1746793, 1746794, 1746795, 1746797, 1746798, 1746799	2.69
184	KARNAL	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	18430, 18432, 18433, 18434, 18436, 18437, 18438, 18439, 18450, 18451, 18452, 18453, 18454, 18455, 18456, 18457, 18458, 18459, 18470, 18472, 18473, 18474, 18475, 18476, 18477, 18478, 184790, 184791, 184792, 184793, 184794, 184795, 184797, 184798, 184799	26.9
1744	KURUKSHETRA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174430, 174432, 174433, 174434, 174436, 174437, 174438, 174439, 174450, 174451, 174452, 174453, 174454, 174455, 174456, 174457, 174458, 174459, 174470, 174472, 174473, 174474, 174475, 174476, 174477, 174478, 1744790, 1744791, 1744792, 1744793, 1744794, 1744795, 1744797, 1744798, 1744799	2.69
1745	NILOKHERI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174530, 174532, 174533, 174534, 174536, 174537, 174538, 174539, 174550, 174551, 174552, 174553, 174554, 174555, 174556, 174557, 174558, 174559, 174570, 174572, 174573, 174574, 174575, 174576, 174577, 174578, 1745790, 1745791, 1745792, 1745793, 1745794, 1745795, 1745797, 1745798, 1745799	2.69

180	PANIPAT	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	18030, 18032, 18033, 18034, 18036, 18037, 18038, 18039, 18050, 18051, 18052, 18053, 18054, 18055, 18056, 18057, 18058, 18059, 18070, 18072, 18073, 18074, 18075, 18076, 18077, 18078, 180790, 180791, 180792, 180793, 180794, 180795, 180797, 180798, 180799	26.9
1741	PEHOWA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	174130, 174132, 174133, 174134, 174136, 174137, 174138, 174139, 174150, 174151, 174152, 174153, 174154, 174155, 174156, 174157, 174158, 174159, 174170, 174172, 174173, 174174, 174175, 174176, 174177, 174178, 1741790, 1741791, 1741792, 1741793, 1741794, 1741795, 1741797, 1741798, 1741799	2.69
1284	BAWAL	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	128430, 128432, 128433, 128434, 128436, 128437, 128438, 128439, 128450, 128451, 128452, 128453, 128454, 128455, 128456, 128457, 128458, 128459, 128470, 128472, 128473, 128474, 128475, 128476, 128477, 128478, 1284790, 1284791, 1284792, 1284793, 1284794, 1284795, 1284797, 1284798, 1284799	2.69
1281	JATUSANA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	128130, 128132, 128133, 128134, 128136, 128137, 128138, 128139, 128150, 128151, 128152, 128153, 128154, 128155, 128156, 128157, 128158, 128159, 128170, 128172, 128173, 128174, 128175, 128176, 128177, 128178, 1281790, 1281791, 1281792, 1281793, 1281794, 1281795, 1281797, 1281798, 1281799	2.69
1259	KOSLI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125930, 125932, 125933, 125934, 125936, 125937, 125938, 125939, 125950, 125951, 125952, 125953, 125954, 125955, 125956, 125957, 125958, 125959, 125970, 125972, 125973, 125974, 125975, 125976, 125977, 125978, 1259790, 1259791, 1259792, 1259793, 1259794, 1259795, 1259797, 1259798, 1259799	2.69

1285	MOHINDERGARH	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	128530, 128532, 128533, 128534, 128536, 128537, 128538, 128539, 128550, 128551, 128552, 128553, 128554, 128555, 128556, 128557, 128558, 128559, 128570, 128572, 128573, 128574, 128575, 128576, 128577, 128578, 1285790, 1285791, 1285792, 1285793, 1285794, 1285795, 1285797, 1285798, 1285799	2.69
1282	NARNAUL	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	128230, 128232, 128233, 128234, 128236, 128237, 128238, 128239, 128250, 128251, 128252, 128253, 128254, 128255, 128256, 128257, 128258, 128259, 128270, 128272, 128273, 128274, 128275, 128276, 128277, 128278, 1282790, 1282791, 1282792, 1282793, 1282794, 1282795, 1282797, 1282798, 1282799	2.69
1274	REWARI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	127430, 127432, 127433, 127434, 127436, 127437, 127438, 127439, 127450, 127451, 127452, 127453, 127454, 127455, 127456, 127457, 127458, 127459, 127470, 127472, 127473, 127474, 127475, 127476, 127477, 127478, 1274790, 1274791, 1274792, 1274793, 1274794, 1274795, 1274797, 1274798, 1274799	2.69
1276	BAHADURGARH	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	127630, 127632, 127633, 127634, 127636, 127637, 127638, 127639, 127650, 127651, 127652, 127653, 127654, 127655, 127656, 127657, 127658, 127659, 127670, 127672, 127673, 127674, 127675, 127676, 127677, 127678, 1276790, 1276791, 1276792, 1276793, 1276794, 1276795, 1276797, 1276798, 1276799	2.69
1254	BAWANIKHERA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125430, 125432, 125433, 125434, 125436, 125437, 125438, 125439, 125450, 125451, 125452, 125453, 125454, 125455, 125456, 125457, 125458, 125459, 125470, 125472, 125473, 125474, 125475, 125476, 125477, 125478, 1254790, 1254791, 1254792, 1254793, 1254794, 1254795, 1254797, 1254798, 1254799	2.69

1664	BHIWANI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	166430, 166432, 166433, 166434, 166436, 166437, 166438, 166439, 166450, 166451, 166452, 166453, 166454, 166455, 166456, 166457, 166458, 166459, 166470, 166472, 166473, 166474, 166475, 166476, 166477, 166478, 1664790, 1664791, 1664792, 1664793, 1664794, 1664795, 1664797, 1664798, 1664799	2.69
1250	CHARKHIDADRI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125030, 125032, 125033, 125034, 125036, 125037, 125038, 125039, 125050, 125051, 125052, 125053, 125054, 125055, 125056, 125057, 125058, 125059, 125070, 125072, 125073, 125074, 125075, 125076, 125077, 125078, 1250790, 1250791, 1250792, 1250793, 1250794, 1250795, 1250797, 1250798, 1250799	2.69
1251	JHAJJAR	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125130, 125132, 125133, 125134, 125136, 125137, 125138, 125139, 125150, 125151, 125152, 125153, 125154, 125155, 125156, 125157, 125158, 125159, 125170, 125172, 125173, 125174, 125175, 125176, 125177, 125178, 1251790, 1251791, 1251792, 1251793, 1251794, 1251795, 1251797, 1251798, 1251799	2.69
1258	KALANAUR	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125830, 125832, 125833, 125834, 125836, 125837, 125838, 125839, 125850, 125851, 125852, 125853, 125854, 125855, 125856, 125857, 125858, 125859, 125870, 125872, 125873, 125874, 125875, 125876, 125877, 125878, 1258790, 1258791, 1258792, 1258793, 1258794, 1258795, 1258797, 1258798, 1258799	2.69
1252	LOHARU	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125230, 125232, 125233, 125234, 125236, 125237, 125238, 125239, 125250, 125251, 125252, 125253, 125254, 125255, 125256, 125257, 125258, 125259, 125270, 125272, 125273, 125274, 125275, 125276, 125277, 125278, 1252790, 1252791, 1252792, 1252793, 1252794, 1252795, 1252797, 1252798, 1252799	2.69

1257	MEHAM	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125730, 125732, 125733, 125734, 125736, 125737, 125738, 125739, 125750, 125751, 125752, 125753, 125754, 125755, 125756, 125757, 125758, 125759, 125770, 125772, 125773, 125774, 125775, 125776, 125777, 125778, 1257790, 1257791, 1257792, 1257793, 1257794, 1257795, 1257797, 1257798, 1257799	2.69
1262	ROHTAK	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	126230, 126232, 126233, 126234, 126236, 126237, 126238, 126239, 126250, 126251, 126252, 126253, 126254, 126255, 126256, 126257, 126258, 126259, 126270, 126272, 126273, 126274, 126275, 126276, 126277, 126278, 1262790, 1262791, 1262792, 1262793, 1262794, 1262795, 1262797, 1262798, 1262799	2.69
1255	SIWANI	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125530, 125532, 125533, 125534, 125536, 125537, 125538, 125539, 125550, 125551, 125552, 125553, 125554, 125555, 125556, 125557, 125558, 125559, 125570, 125572, 125573, 125574, 125575, 125576, 125577, 125578, 1255790, 1255791, 1255792, 1255793, 1255794, 1255795, 1255797, 1255798, 1255799	2.69
1253	TOHSHAM	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	125330, 125332, 125333, 125334, 125336, 125337, 125338, 125339, 125350, 125351, 125352, 125353, 125354, 125355, 125356, 125357, 125358, 125359, 125370, 125372, 125373, 125374, 125375, 125376, 125377, 125378, 1253790, 1253791, 1253792, 1253793, 1253794, 1253795, 1253797, 1253798, 1253799	2.69
1263	GOHANA	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	126330, 126332, 126333, 126334, 126336, 126337, 126338, 126339, 126350, 126351, 126352, 126353, 126354, 126355, 126356, 126357, 126358, 126359, 126370, 126372, 126373, 126374, 126375, 126376, 126377, 126378, 1263790, 1263791, 1263792, 1263793, 1263794, 1263795, 1263797, 1263798, 1263799	2.69

130	SONIPAT	2, 4, 31, 35, 796, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 71,	30, 32, 33, 34, 36, 37, 38, 39, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 70, 72, 73, 74, 75, 76, 77, 78, 790, 791, 792, 793, 794, 795, 797, 798, 799	13030, 13032, 13033, 13034, 13036, 13037, 13038, 13039, 13050, 13051, 13052, 13053, 13054, 13055, 13056, 13057, 13058, 13059, 13070, 13072, 13073, 13074, 13075, 13076, 13077, 13078, 130790, 130791, 130792, 130793, 130794, 130795, 130797, 130798, 130799	26.9
Total new additional TI generated from Spare-Sub levels for Haryana LSA (28.64 million)					**286.42**

*As per data provided by the Department of Telecommunication (DoT)

Annexure – VIII

[Refer para. 2.26 of Chapter II]

Fixed-line codes created by using unutilized sub-levels (i.e. SDCA codes + withdrawn Sub-levels) and the corresponding TI resources generated - illustrated for Maharashtra LSA

SDCA NAME	SDCA CODE	Sub-levels with Zero Utilization*	New codes created by withdrawing sub-levels with NIL utilization in the SDCA	TIs generated after withdrawing sub-levels with Zero utilization (in Lakhs)
AHMEDNAGAR	241	71	24171	1.00
AKOLE	2424	60,61,62,63,64,65,66,67,68,69,31,35,796,71	242460, 242461, 242462, 242463, 242464, 242465, 242466, 242467, 242468, 242469, 242431, 242435, 2424796, 242471	1.31
JAMKHED	2421	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24214, 242160, 242161, 242162, 242163, 242164, 242165, 242166, 242167, 242168, 242169, 242131, 242135, 2421796, 242171	2.31
KARJAT	2489	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24894, 248960, 248961, 248962, 248963, 248964, 248965, 248966, 248967, 248968, 248969, 248931, 248935, 2489796, 248971	2.31
KOPARAGON	2423	60,61,62,63,64,65,66,67,68,69,71	242360, 242361, 242362, 242363, 242364, 242365, 242366, 242367, 242368, 242369, 242371	1.10
NEWASA	2427	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24274, 242760, 242761, 242762, 242763, 242764, 242765, 242766, 242767, 242768, 242769, 242731, 242735, 2427796, 242771, 242730, 242739	2.51
PARNER	2488	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24884, 248860, 248861, 248862, 248863, 248864, 248865, 248866, 248867, 248868, 248869, 248831, 248835, 2488796, 248871	2.31

PATHARDI	2428	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24284, 242860, 242861, 242862, 242863, 242864, 242865, 242866, 242867, 242868, 242869, 242831, 242835, 2428796, 242871, 242830, 242839	2.51
RAHURI	2426	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	242660, 242661, 242662, 242663, 242664, 242665, 242666, 242667, 242668, 242669, 242631, 242635, 2426796, 242671, 242630, 242639	1.51
SANGAMNER	2425	60,61,62,63,64,65,66,67,68,69,31,35,796,71	242560, 242561, 242562, 242563, 242564, 242565, 242566, 242567, 242568, 242569, 242531, 242535, 2425796, 242571	1.31
SHEVGAON	2429	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	242960, 242961, 242962, 242963, 242964, 242965, 242966, 242967, 242968, 242969, 242931, 242935, 2429796, 242971, 242930, 242939	1.51
SHRI RAMPUR	2422	4,60,61,62,63,64,65,66,67,68,69,71	24224, 242260, 242261, 242262, 242263, 242264, 242265, 242266, 242267, 242268, 242269, 242271	2.10
SHRIGONDA	2487	4,60,61,62,63,64,65,66,67,68,69,71,30,39	24874, 248760, 248761, 248762, 248763, 248764, 248765, 248766, 248767, 248768, 248769, 248771, 248730, 248739	2.30
AURANGABAD	2432	4,71,2	24324, 243271, 24322	2.10
GANGAPUR	2433	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24334, 243360, 243361, 243362, 243363, 243364, 243365, 243366, 243367, 243368, 243369, 243331, 243335, 2433796, 243371, 243330, 243339	2.51
GOLEGAON	2439	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24394, 243960, 243961, 243962, 243963, 243964, 243965, 243966, 243967, 243968, 243969, 243931, 243935, 2439796, 243971	2.31
KANNAD	2435	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24354, 243560, 243561, 243562, 243563, 243564, 243565, 243566, 243567, 243568, 243569, 243531, 243535, 2435796, 243571, 243530, 243539	2.51
KHULTABAD	2437	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24374, 243760, 243761, 243762, 243763, 243764, 243765, 243766, 243767, 243768, 243769, 243731, 243735, 2437796, 243771, 243730, 243739	2.51
PAITHAN	2431	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,38,39	24314, 243160, 243161, 243162, 243163, 243164, 243165, 243166, 243167, 243168, 243169, 243131, 243135, 2431796, 243171, 243130, 243138, 243139	2.61
SILLOD	2430	31,35,796,71,30,39	243031, 243035, 2430796, 243071, 243030, 243039	0.51
SOYEGAON	2438	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24384, 243860, 243861, 243862, 243863, 243864, 243865, 243866, 243867, 243868, 243869, 243831, 243835, 2438796, 243871	2.31

VIJAPUR	2436	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24364, 243660, 243661, 243662, 243663, 243664, 243665, 243666, 243667, 243668, 243669, 243631, 243635, 2436796, 243671, 243630, 243639	2.51
AMBEJOGAI	2446	60,61,62,63,64,65,66,67,68,69,31,35,796,71	244660, 244661, 244662, 244663, 244664, 244665, 244666, 244667, 244668, 244669, 244631, 244635, 2446796, 244671	1.31
ASHTI	2441	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24414, 244160, 244161, 244162, 244163, 244164, 244165, 244166, 244167, 244168, 244169, 244131, 244135, 2441796, 244171	2.31
BHIR	2442	60,61,62,63,64,65,66,67,68,69,71	244260, 244261, 244262, 244263, 244264, 244265, 244266, 244267, 244268, 244269, 244271	1.10
GEVRAI	2447	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24474, 244760, 244761, 244762, 244763, 244764, 244765, 244766, 244767, 244768, 244769, 244731, 244735, 2447796, 244771, 244730, 244739	2.51
KAIJ	2445	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24454, 244560, 244561, 244562, 244563, 244564, 244565, 244566, 244567, 244568, 244569, 244531, 244535, 2445796, 244571, 244530, 244539	2.51
MANJALEGAON	2443	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	244360, 244361, 244362, 244363, 244364, 244365, 244366, 244367, 244368, 244369, 244331, 244335, 2443796, 244371, 244330, 244339	1.51
PATODA	2444	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24444, 244460, 244461, 244462, 244463, 244464, 244465, 244466, 244467, 244468, 244469, 244431, 244435, 2444796, 244471	2.31
DHADGAON	2595	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25954, 259560, 259561, 259562, 259563, 259564, 259565, 259566, 259567, 259568, 259569, 259531, 259535, 2595796, 259571	2.31
DHULE	2562	60,61,62,63,64,65,66,67,68,69,71	256260, 256261, 256262, 256263, 256264, 256265, 256266, 256267, 256268, 256269, 256271	1.10
KUSUMBA	2560	4,31,35,796,71	25604, 256031, 256035, 2560796, 256071	1.31
NANDURBAR	2564	60,61,62,63,64,65,66,67,68,69,71	256460, 256461, 256462, 256463, 256464, 256465, 256466, 256467, 256468, 256469, 256471	1.10
NAVAPUR	2569	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25694, 256960, 256961, 256962, 256963, 256964, 256965, 256966, 256967, 256968, 256969, 256931, 256935, 2569796, 256971, 256930, 256939	2.51
PIMPALNER	2561	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25614, 256160, 256161, 256162, 256163, 256164, 256165, 256166, 256167, 256168, 256169, 256131, 256135, 2561796, 256171	2.31

SAKRI	2568	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25684, 256860, 256861, 256862, 256863, 256864, 256865, 256866, 256867, 256868, 256869, 256831, 256835, 2568796, 256871	2.31
SHAHADA	2565	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	256560, 256561, 256562, 256563, 256564, 256565, 256566, 256567, 256568, 256569, 256531, 256535, 2565796, 256571, 256530, 256539	1.51
SHIRPUR	2563	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25634, 256360, 256361, 256362, 256363, 256364, 256365, 256366, 256367, 256368, 256369, 256331, 256335, 2563796, 256371, 256330, 256339	2.51
SINDKHEDA	2566	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25664, 256660, 256661, 256662, 256663, 256664, 256665, 256666, 256667, 256668, 256669, 256631, 256635, 2566796, 256671, 256630, 256639	2.51
TALODA	2567	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25674, 256760, 256761, 256762, 256763, 256764, 256765, 256766, 256767, 256768, 256769, 256731, 256735, 2567796, 256771, 256730, 256739	2.51
AMALNER	2587	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	258760, 258761, 258762, 258763, 258764, 258765, 258766, 258767, 258768, 258769, 258731, 258735, 2587796, 258771, 258730, 258739	1.51
BHUSAWAL	2582	60,61,62,63,64,65,66,67,68,69,71	258260, 258261, 258262, 258263, 258264, 258265, 258266, 258267, 258268, 258269, 258271	1.10
CHALISGAON	2589	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25894, 258960, 258961, 258962, 258963, 258964, 258965, 258966, 258967, 258968, 258969, 258931, 258935, 2589796, 258971	2.31
CHOPDA	2586	60,61,62,63,64,65,66,67,68,69,31,35,796,71	258660, 258661, 258662, 258663, 258664, 258665, 258666, 258667, 258668, 258669, 258631, 258635, 2586796, 258671	1.31
EDALABAD	2583	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25834, 258360, 258361, 258362, 258363, 258364, 258365, 258366, 258367, 258368, 258369, 258331, 258335, 2583796, 258371, 258330, 258339	2.51
ERANDUL	2588	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25884, 258860, 258861, 258862, 258863, 258864, 258865, 258866, 258867, 258868, 258869, 258831, 258835, 2588796, 258871, 258830, 258839	2.51
JALGAON	257	60,61,62,63,64,65,66,67,68,69,71	25760, 25761, 25762, 25763, 25764, 25765, 25766, 25767, 25768, 25769, 25771	11.00
JAMNER	2580	4,71,30,39	25804, 258071, 258030, 258039	1.30
PACHORA	2596	60,61,62,63,64,65,66,67,68,69,31,35,796,71	259660, 259661, 259662, 259663, 259664, 259665, 259666, 259667, 259668, 259669, 259631, 259635, 2596796, 259671	1.31

PAROLA	2597	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25974, 259760, 259761, 259762, 259763, 259764, 259765, 259766, 259767, 259768, 259769, 259731, 259735, 2597796, 259771, 259730, 259739	2.51
RAVER	2584	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	258460, 258461, 258462, 258463, 258464, 258465, 258466, 258467, 258468, 258469, 258431, 258435, 2584796, 258471, 258430, 258439	1.51
YAWAL	2585	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	258560, 258561, 258562, 258563, 258564, 258565, 258566, 258567, 258568, 258569, 258531, 258535, 2585796, 258571, 258530, 258539	1.51
AMBAD	2483	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	248360, 248361, 248362, 248363, 248364, 248365, 248366, 248367, 248368, 248369, 248331, 248335, 2483796, 248371, 248330, 248339	1.51
BHOKARDAN	2485	60,61,62,63,64,65,66,67,68,69,31,35,796,71	248560, 248561, 248562, 248563, 248564, 248565, 248566, 248567, 248568, 248569, 248531, 248535, 2485796, 248571	1.31
JALNA	2482	60,61,62,63,64,65,66,67,68,69,71	248260, 248261, 248262, 248263, 248264, 248265, 248266, 248267, 248268, 248269, 248271	1.10
NER	2481	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24814, 248160, 248161, 248162, 248163, 248164, 248165, 248166, 248167, 248168, 248169, 248131, 248135, 2481796, 248171	2.31
PARTUR	2484	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	248460, 248461, 248462, 248463, 248464, 248465, 248466, 248467, 248468, 248469, 248431, 248435, 2484796, 248471, 248430, 248439	1.51
BASSEIN	250	4,60,61,62,63,64,65,66,67,68,69,71	2504, 25060, 25061, 25062, 25063, 25064, 25065, 25066, 25067, 25068, 25069, 25071	21.00
BHIWANDI	2522	4,71	25224, 252271	1.10
DAHANU	2528	4,71	25284, 252871	1.10
JAWAHAR	2520	4,60,61,62,63,64,65,66,67,68,69,31,35,796	25204, 252060, 252061, 252062, 252063, 252064, 252065, 252066, 252067, 252068, 252069, 252031, 252035, 2520796	2.21
KALYAN	251	60,61,62,63,64,65,66,67,68,69,71	25160, 25161, 25162, 25163, 25164, 25165, 25166, 25167, 25168, 25169, 25171	11.00
MOKHADA	2529	4,31,35,796,71	25294, 252931, 252935, 2529796, 252971	1.31
MURBAD	2524	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25244, 252460, 252461, 252462, 252463, 252464, 252465, 252466, 252467, 252468, 252469, 252431, 252435, 2524796, 252471	2.31

PALGHAR	2525	4,60,61,62,63,64,65,66,67,68,69,71	25254, 252560, 252561, 252562, 252563, 252564, 252565, 252566, 252567, 252568, 252569, 252571	2.10
SHAHAPUR	2527	4,31,35,796,71,30,39	25274, 252731, 252735, 2527796, 252771, 252730, 252739	1.51
TALASARI	2521	4,31,35,796,71	25214, 252131, 252135, 2521796, 252171	1.31
WADA	2526	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25264, 252660, 252661, 252662, 252663, 252664, 252665, 252666, 252667, 252668, 252669, 252631, 252635, 2526796, 252671	2.31
AJARA	2323	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23234, 232360, 232361, 232362, 232363, 232364, 232365, 232366, 232367, 232368, 232369, 232331, 232335, 2323796, 232371	2.31
BHUDARGAD (GARGOTI)	2599	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,2	25994, 259960, 259961, 259962, 259963, 259964, 259965, 259966, 259967, 259968, 259969, 259931, 259935, 2599796, 259971, 25992	3.31
CHANDGAD	2320	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23204, 232060, 232061, 232062, 232063, 232064, 232065, 232066, 232067, 232068, 232069, 232031, 232035, 2320796, 232071	2.31
GADHINGLAJ	2327	60,61,62,63,64,65,66,67,68,69,31,35,796,71	232760, 232761, 232762, 232763, 232764, 232765, 232766, 232767, 232768, 232769, 232731, 232735, 2327796, 232771	1.31
GAGANBAVADA	2326	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23264, 232660, 232661, 232662, 232663, 232664, 232665, 232666, 232667, 232668, 232669, 232631, 232635, 2326796, 232671	2.31
HATKANGALE (ICHALKARANJI)	2324	60,61,62,63,64,65,66,67,68,69,31,35,796,71	232460, 232461, 232462, 232463, 232464, 232465, 232466, 232467, 232468, 232469, 232431, 232435, 2324796, 232471	1.31
KAGAL (MURGUD)	2325	4,60,61,62,63,64,65,66,67,68,69,31,35,796,30,39	23254, 232560, 232561, 232562, 232563, 232564, 232565, 232566, 232567, 232568, 232569, 232531, 232535, 2325796, 232530, 232539	2.41
KOLHAPUR	231	60,61,62,63,64,65,66,67,68,69,71	23160, 23161, 23162, 23163, 23164, 23165, 23166, 23167, 23168, 23169, 23171	11.00
PANHALA	2328	4,31,35,796,71	23284, 232831, 232835, 2328796, 232871	1.31
RADHANAGAR	2321	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23214, 232160, 232161, 232162, 232163, 232164, 232165, 232166, 232167, 232168, 232169, 232131, 232135, 2321796, 232171	2.31
SHAHUWADI (MALAKAPUR)	2329	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23294, 232960, 232961, 232962, 232963, 232964, 232965, 232966, 232967, 232968, 232969, 232931, 232935, 2329796, 232971	2.31

SHIROL (JALSINGPUR)	2322	60,61,62,63,64,65,66,67,68,69,31,35, 796,71	232260, 232261, 232262, 232263, 232264, 232265, 232266, 232267, 232268, 232269, 232231, 232235, 2322796, 232271	1.31
DEOGAD	2364	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71	23644, 236460, 236461, 236462, 236463, 236464, 236465, 236466, 236467, 236468, 236469, 236431, 236435, 2364796, 236471	2.31
KANKAVALI	2367	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71,30,39	23674, 236760, 236761, 236762, 236763, 236764, 236765, 236766, 236767, 236768, 236769, 236731, 236735, 2367796, 236771, 236730, 236739	2.51
KUDAL	2362	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71,30,39	23624, 236260, 236261, 236262, 236263, 236264, 236265, 236266, 236267, 236268, 236269, 236231, 236235, 2362796, 236271, 236230, 236239	2.51
MALWAN	2365	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71	23654, 236560, 236561, 236562, 236563, 236564, 236565, 236566, 236567, 236568, 236569, 236531, 236535, 2365796, 236571	2.31
SAWANTWADI	2363	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71	23634, 236360, 236361, 236362, 236363, 236364, 236365, 236366, 236367, 236368, 236369, 236331, 236335, 2363796, 236371	2.31
VENGURLA	2366	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71,30,39	23664, 236660, 236661, 236662, 236663, 236664, 236665, 236666, 236667, 236668, 236669, 236631, 236635, 2366796, 236671, 236630, 236639	2.51
AHMEDPUR	2381	60,61,62,63,64,65,66,67,68,69,31,35, 796,71,30,39	238160, 238161, 238162, 238163, 238164, 238165, 238166, 238167, 238168, 238169, 238131, 238135, 2381796, 238171, 238130, 238139	1.51
AUSA	2383	60,61,62,63,64,65,66,67,68,69,31,35, 796,71,30,39	238360, 238361, 238362, 238363, 238364, 238365, 238366, 238367, 238368, 238369, 238331, 238335, 2383796, 238371, 238330, 238339	1.51
LATUR	2382	60,61,62,63,64,65,66,67,68,69,71	238260, 238261, 238262, 238263, 238264, 238265, 238266, 238267, 238268, 238269, 238271	1.10
NILANGA	2384	31,35,796,71,30,39	238431, 238435, 2384796, 238471, 238430, 238439	0.51
UDGIR	2385	60,61,62,63,64,65,66,67,68,69,31,35, 796,71	238560, 238561, 238562, 238563, 238564, 238565, 238566, 238567, 238568, 238569, 238531, 238535, 2385796, 238571	1.31
BHOKAR	2467	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71	24674, 246760, 246761, 246762, 246763, 246764, 246765, 246766, 246767, 246768, 246769, 246731, 246735, 2467796, 246771	2.31
BILLOLI	2465	4,60,61,62,63,64,65,66,67,68,69,31,3 5,796,71	24654, 246560, 246561, 246562, 246563, 246564, 246565, 246566, 246567, 246568, 246569, 246531, 246535, 2465796, 246571	2.31

DEGLOOR	2463	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	246360, 246361, 246362, 246363, 246364, 246365, 246366, 246367, 246368, 246369, 246331, 246335, 2463796, 246371, 246330, 246339	1.51
DELHI TANDA	2460	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24604, 246060, 246061, 246062, 246063, 246064, 246065, 246066, 246067, 246068, 246069, 246031, 246035, 2460796, 246071	2.31
HADGAON	2468	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24684, 246860, 246861, 246862, 246863, 246864, 246865, 246866, 246867, 246868, 246869, 246831, 246835, 2468796, 246871, 246830, 246839	2.51
KANDHAR	2466	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24664, 246660, 246661, 246662, 246663, 246664, 246665, 246666, 246667, 246668, 246669, 246631, 246635, 2466796, 246671, 246630, 246639	2.51
KINWAT	2469	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24694, 246960, 246961, 246962, 246963, 246964, 246965, 246966, 246967, 246968, 246969, 246931, 246935, 2469796, 246971	2.31
MUKHED	2461	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24614, 246160, 246161, 246162, 246163, 246164, 246165, 246166, 246167, 246168, 246169, 246131, 246135, 2461796, 246171, 246130, 246139	2.51
NANDED	2462	60,61,62,63,64,65,66,67,68,69,71	246260, 246261, 246262, 246263, 246264, 246265, 246266, 246267, 246268, 246269, 246271	1.10
CHANWAD	2556	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	255660, 255661, 255662, 255663, 255664, 255665, 255666, 255667, 255668, 255669, 255631, 255635, 2556796, 255671, 255630, 255639	1.51
DINDORI	2557	60,61,62,63,64,65,66,67,68,69,71	255760, 255761, 255762, 255763, 255764, 255765, 255766, 255767, 255768, 255769, 255771	1.10
IGATPURI	2553	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25534, 255360, 255361, 255362, 255363, 255364, 255365, 255366, 255367, 255368, 255369, 255331, 255335, 2553796, 255371	2.31
KALWAN	2592	4,31,35,796,71	25924, 259231, 259235, 2592796, 259271	1.31
MALEGAON	2554	60,61,62,63,64,65,66,67,68,69,71	255460, 255461, 255462, 255463, 255464, 255465, 255466, 255467, 255468, 255469, 255471	1.10
MANMAD	2591	31,35,796,71,30,39	259131, 259135, 2591796, 259171, 259130, 259139	0.51
NANDGAON	2552	60,61,62,63,64,65,66,67,68,69,31,35,796	255260, 255261, 255262, 255263, 255264, 255265, 255266, 255267, 255268, 255269, 255231, 255235, 2552796	1.21

NASIKCITY	253	60,61,62,63,64,65,66,67,68,69,71	25360, 25361, 25362, 25363, 25364, 25365, 25366, 25367, 25368, 25369, 25371	11.00
NIPHAD	2550	31,35,796,71	255031, 255035, 2550796, 255071	0.31
PEINT	2558	4,31,35,796,71	25584, 255831, 255835, 2558796, 255871	1.31
SATANA	2555	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25554, 255560, 255561, 255562, 255563, 255564, 255565, 255566, 255567, 255568, 255569, 255531, 255535, 2555796, 255571	2.31
SINNAR	2551	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25514, 255160, 255161, 255162, 255163, 255164, 255165, 255166, 255167, 255168, 255169, 255131, 255135, 2551796, 255171	2.31
SURGENA	2593	4,31,35,796,71	25934, 259331, 259335, 2593796, 259371	1.31
TRIMBAK	2594	60,61,62,63,64,65,66,67,68,69,31,35,796,71	259460, 259461, 259462, 259463, 259464, 259465, 259466, 259467, 259468, 259469, 259431, 259435, 2594796, 259471	1.31
UMRANE	2598	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	25984, 259860, 259861, 259862, 259863, 259864, 259865, 259866, 259867, 259868, 259869, 259831, 259835, 2598796, 259871	2.31
YEOLA	2559	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	25594, 255960, 255961, 255962, 255963, 255964, 255965, 255966, 255967, 255968, 255969, 255931, 255935, 2559796, 255971, 255930, 255939	2.51
BHOOM	2478	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24784, 247860, 247861, 247862, 247863, 247864, 247865, 247866, 247867, 247868, 247869, 247831, 247835, 2478796, 247871	2.31
KALLAM	2473	60,61,62,63,64,65,66,67,68,69,31,35,796,71	247360, 247361, 247362, 247363, 247364, 247365, 247366, 247367, 247368, 247369, 247331, 247335, 2473796, 247371	1.31
OMERGA	2475	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	247560, 247561, 247562, 247563, 247564, 247565, 247566, 247567, 247568, 247569, 247531, 247535, 2475796, 247571, 247530, 247539	1.51
OSMANABAD	2472	60,61,62,63,64,65,66,67,68,69,71	247260, 247261, 247262, 247263, 247264, 247265, 247266, 247267, 247268, 247269, 247271	1.10
PARANDA	2477	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24774, 247760, 247761, 247762, 247763, 247764, 247765, 247766, 247767, 247768, 247769, 247731, 247735, 2477796, 247771	2.31
TULJAPUR	2471	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	247160, 247161, 247162, 247163, 247164, 247165, 247166, 247167, 247168, 247169, 247131, 247135, 2471796, 247171, 247130, 247139	1.51

BASMATNAGAR	2454	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	245460, 245461, 245462, 245463, 245464, 245465, 245466, 245467, 245468, 245469, 245431, 245435, 2454796, 245471, 245430, 245439	1.51
GANGAKHED	2453	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	245360, 245361, 245362, 245363, 245364, 245365, 245366, 245367, 245368, 245369, 245331, 245335, 2453796, 245371, 245330, 245339	1.51
HINGOLI	2456	60,61,62,63,64,65,66,67,68,69,31,35,796,71	245660, 245661, 245662, 245663, 245664, 245665, 245666, 245667, 245668, 245669, 245631, 245635, 2456796, 245671	1.31
JINTDOR	2457	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	24574, 245760, 245761, 245762, 245763, 245764, 245765, 245766, 245767, 245768, 245769, 245731, 245735, 2457796, 245771, 245730, 245739	2.51
KALAMNURI	2455	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	24554, 245560, 245561, 245562, 245563, 245564, 245565, 245566, 245567, 245568, 245569, 245531, 245535, 2455796, 245571	2.31
PARBHANI	2452	60,61,62,63,64,65,66,67,68,69,71	245260, 245261, 245262, 245263, 245264, 245265, 245266, 245267, 245268, 245269, 245271	1.10
PATHARI	2451	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	245160, 245161, 245162, 245163, 245164, 245165, 245166, 245167, 245168, 245169, 245131, 245135, 2451796, 245171, 245130, 245139	1.51
ALIBAGH	2141	60,61,62,63,64,65,66,67,68,69,71	214160, 214161, 214162, 214163, 214164, 214165, 214166, 214167, 214168, 214169, 214171	1.10
KARJAT	2148	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21484, 214860, 214861, 214862, 214863, 214864, 214865, 214866, 214867, 214868, 214869, 214831, 214835, 2148796, 214871	2.31
KHOPOLI	2192	60,61,62,63,64,65,66,67,68,69,71	219260, 219261, 219262, 219263, 219264, 219265, 219266, 219267, 219268, 219269, 219271	1.10
MAHAD	2145	4,31,35,796,71	21454, 214531, 214535, 2145796, 214571	1.31
MAHASALA	2149	4,31,35,796,71	21494, 214931, 214935, 2149796, 214971	1.31
MANGAON	2140	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21404, 214060, 214061, 214062, 214063, 214064, 214065, 214066, 214067, 214068, 214069, 214031, 214035, 2140796, 214071	2.31
MURUD	2144	4,31,35,796,71	21444, 214431, 214435, 2144796, 214471	1.31

PALI	2142	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,33,39	21424, 214260, 214261, 214262, 214263, 214264, 214265, 214266, 214267, 214268, 214269, 214231, 214235, 2142796, 214271, 214230, 214233, 214239	2.61
PEN	2143	60,61,62,63,64,65,66,67,68,69,71	214360, 214361, 214362, 214363, 214364, 214365, 214366, 214367, 214368, 214369, 214371	1.10
POLADPUR	2191	4,31,35,796,71	21914, 219131, 219135, 2191796, 219171	1.31
ROHA	2194	4,60,61,62,63,64,65,66,67,68,69,71	21944, 219460, 219461, 219462, 219463, 219464, 219465, 219466, 219467, 219468, 219469, 219471	2.10
SHRIVARDHAN	2147	4,31,35,796	21474, 214731, 214735, 2147796	1.21
BARAMATI	2112	60,61,62,63,64,65,66,67,68,69,71	211260, 211261, 211262, 211263, 211264, 211265, 211266, 211267, 211268, 211269, 211271	1.10
BHOR	2113	4,31,35,796,71,2	21134, 211331, 211335, 2113796, 211371, 21132	2.31
CHINCHWAD	212	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	2124, 21260, 21261, 21262, 21263, 21264, 21265, 21266, 21267, 21268, 21269, 21231, 21235, 212796, 21271	23.10
DAUND	2117	60,61,62,63,64,65,66,67,68,69,71	211760, 211761, 211762, 211763, 211764, 211765, 211766, 211767, 211768, 211769, 211771	1.10
INDAPUR	2111	60,61,62,63,64,65,66,67,68,69,31,35,796,71	211160, 211161, 211162, 211163, 211164, 211165, 211166, 211167, 211168, 211169, 211131, 211135, 2111796, 211171	1.31
JUNNAR	2132	60,61,62,63,64,65,66,67,68,69,31,35,796	213260, 213261, 213262, 213263, 213264, 213265, 213266, 213267, 213268, 213269, 213231, 213235, 2132796	1.21
KEDGAON	2119	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21194, 211960, 211961, 211962, 211963, 211964, 211965, 211966, 211967, 211968, 211969, 211931, 211935, 2119796, 211971	2.31
KHADAKWASALA	230	4,60,61,62,63,64,65,66,67,68,69,31,35,796	2304, 23060, 23061, 23062, 23063, 23064, 23065, 23066, 23067, 23068, 23069, 23031, 23035, 230796	22.10
LONAVALA	2114	60,61,62,63,64,65,66,67,68,69,71	211460, 211461, 211462, 211463, 211464, 211465, 211466, 211467, 211468, 211469, 211471	1.10
MANCHAR	2133	4,31,35,796,71	21334, 213331, 213335, 2133796, 213371	1.31

NAHAVARA	2137	60,61,62,63,64,65,66,67,68,69,31,35,796,71	213760, 213761, 213762, 213763, 213764, 213765, 213766, 213767, 213768, 213769, 213731, 213735, 2137796, 213771	1.31
PIRANGUT	2139	4,31,35,796,2	21394, 213931, 213935, 2139796, 21392	2.21
PUNE	20	60,61,62,63,64,65,66,67,68,69,71	2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2071	#####
RAJGURUNAGAR	2135	4	21354	1.00
SASWAD	2115	31,35,796,71	211531, 211535, 2115796, 211571	0.31
SHIRUR	2138	60,61,62,63,64,65,66,67,68,69,31,35,796,71	213860, 213861, 213862, 213863, 213864, 213865, 213866, 213867, 213868, 213869, 213831, 213835, 2138796, 213871	1.31
URLIKANCHAN	2136	4,31,35,796,71,2	21364, 213631, 213635, 2136796, 213671, 21362	2.31
VELHE	2130	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21304, 213060, 213061, 213062, 213063, 213064, 213065, 213066, 213067, 213068, 213069, 213031, 213035, 2130796, 213071	2.31
WALCHANDNAGAR	2118	4,60,61,62,63,64,65,66,67,68,69,71	21184, 211860, 211861, 211862, 211863, 211864, 211865, 211866, 211867, 211868, 211869, 211871	2.10
CHIPLUN	2355	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23554, 235560, 235561, 235562, 235563, 235564, 235565, 235566, 235567, 235568, 235569, 235531, 235535, 2355796, 235571	2.31
DAPOLI	2358	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23584, 235860, 235861, 235862, 235863, 235864, 235865, 235866, 235867, 235868, 235869, 235831, 235835, 2358796, 235871	2.31
GUHAGAR	2359	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23594, 235960, 235961, 235962, 235963, 235964, 235965, 235966, 235967, 235968, 235969, 235931, 235935, 2359796, 235971	2.31
KHED	2356	60,61,62,63,64,65,66,67,68,69,31,35,796,71	235660, 235661, 235662, 235663, 235664, 235665, 235666, 235667, 235668, 235669, 235631, 235635, 2356796, 235671	1.31
LANGA	2351	4,31,35,796,71	23514, 235131, 235135, 2351796, 235171	1.31
MADANGAD	2350	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23504, 235060, 235061, 235062, 235063, 235064, 235065, 235066, 235067, 235068, 235069, 235031, 235035, 2350796, 235071	2.31
MALGUND	2357	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23574, 235760, 235761, 235762, 235763, 235764, 235765, 235766, 235767, 235768, 235769, 235731, 235735, 2357796, 235771	2.31

RAJAPUR	2353	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23534, 235360, 235361, 235362, 235363, 235364, 235365, 235366, 235367, 235368, 235369, 235331, 235335, 2353796, 235371	2.31
RATNAGIRI	2352	60,61,62,63,64,65,66,67,68,69,71	235260, 235261, 235262, 235263, 235264, 235265, 235266, 235267, 235268, 235269, 235271	1.10
SANGANESHWAR (DEORUKH)	2354	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23544, 235460, 235461, 235462, 235463, 235464, 235465, 235466, 235467, 235468, 235469, 235431, 235435, 2354796, 235471	2.31
ATPADI	2343	60,61,62,63,64,65,66,67,68,69,31,35,796,71	234360, 234361, 234362, 234363, 234364, 234365, 234366, 234367, 234368, 234369, 234331, 234335, 2343796, 234371	1.31
ISLAMPUR	2342	60,61,62,63,64,65,66,67,68,69,71,30	234260, 234261, 234262, 234263, 234264, 234265, 234266, 234267, 234268, 234269, 234271, 234230	1.20
JATH	2344	4,31,35,796,71	23444, 234431, 234435, 2344796, 234471	1.31
KAVATHEMANKAL	2341	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23414, 234160, 234161, 234162, 234163, 234164, 234165, 234166, 234167, 234168, 234169, 234131, 234135, 2341796, 234171	2.31
SANGLI	233	60,61,62,63,64,65,66,67,68,69,71	23360, 23361, 23362, 23363, 23364, 23365, 23366, 23367, 23368, 23369, 23371	11.00
SHIRALA	2345	4,31,35,796,71	23454, 234531, 234535, 2345796, 234571	1.31
TASGAON	2346	60,61,62,63,64,65,66,67,68,69,31,35,796,71	234660, 234661, 234662, 234663, 234664, 234665, 234666, 234667, 234668, 234669, 234631, 234635, 2346796, 234671	1.31
VITA	2347	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30	234760, 234761, 234762, 234763, 234764, 234765, 234766, 234767, 234768, 234769, 234731, 234735, 2347796, 234771, 234730	1.41
DHIWADI	2165	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21654, 216560, 216561, 216562, 216563, 216564, 216565, 216566, 216567, 216568, 216569, 216531, 216535, 2165796, 216571	2.31
KARAD	2164	60,61,62,63,64,65,66,67,68,69,71	216460, 216461, 216462, 216463, 216464, 216465, 216466, 216467, 216468, 216469, 216471	1.10
KOREGAON	2163	31,35,796,71	216331, 216335, 2163796, 216371	0.31
MAHABALESWAR	2168	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30	216860, 216861, 216862, 216863, 216864, 216865, 216866, 216867, 216868, 216869, 216831, 216835, 2168796, 216871, 216830	1.41

MAHASWAD	2373	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23734, 237360, 237361, 237362, 237363, 237364, 237365, 237366, 237367, 237368, 237369, 237331, 237335, 2373796, 237371	2.31
MEDHA	2378	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23784, 237860, 237861, 237862, 237863, 237864, 237865, 237866, 237867, 237868, 237869, 237831, 237835, 2378796, 237871	2.31
PATAN	2372	60,61,62,63,64,65,66,67,68,69,31,35,796	237260, 237261, 237262, 237263, 237264, 237265, 237266, 237267, 237268, 237269, 237231, 237235, 2372796	1.21
PHALTAN	2166	60,61,62,63,64,65,66,67,68,69,31,35,796,71	216660, 216661, 216662, 216663, 216664, 216665, 216666, 216667, 216668, 216669, 216631, 216635, 2166796, 216671	1.31
PUSEGAON	2375	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23754, 237560, 237561, 237562, 237563, 237564, 237565, 237566, 237567, 237568, 237569, 237531, 237535, 2375796, 237571	2.31
SAKARWADI	2160	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21604, 216060, 216061, 216062, 216063, 216064, 216065, 216066, 216067, 216068, 216069, 216031, 216035, 2160796, 216071	2.31
SATARA	2162	60,61,62,63,64,65,66,67,68,69	216260, 216261, 216262, 216263, 216264, 216265, 216266, 216267, 216268, 216269	1.00
SHIRWAL	2169	31,35,796,71	216931, 216935, 2169796, 216971	0.31
VADUJ	2161	4,31,35,796,71	21614, 216131, 216135, 2161796, 216171	1.31
WAI	2167	60,61,62,63,64,65,66,67,68,69,31,35,796,71	216760, 216761, 216762, 216763, 216764, 216765, 216766, 216767, 216768, 216769, 216731, 216735, 2167796, 216771	1.31
WATHAR	2371	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	23714, 237160, 237161, 237162, 237163, 237164, 237165, 237166, 237167, 237168, 237169, 237131, 237135, 2371796, 237171	2.31
AKKALKOT	2181	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	218160, 218161, 218162, 218163, 218164, 218165, 218166, 218167, 218168, 218169, 218131, 218135, 2181796, 218171, 218130, 218139	1.51
BARSI	2184	60,61,62,63,64,65,66,67,68,69,31,35,796,71	218460, 218461, 218462, 218463, 218464, 218465, 218466, 218467, 218468, 218469, 218431, 218435, 2184796, 218471	1.31
KARMALA	2182	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	21824, 218260, 218261, 218262, 218263, 218264, 218265, 218266, 218267, 218268, 218269, 218231, 218235, 2182796, 218271	2.31

MADHA	2183	4,60,61,62,63,64,65,66,67,68,69,31,35,796	21834, 218360, 218361, 218362, 218363, 218364, 218365, 218366, 218367, 218368, 218369, 218331, 218335, 2183796	2.21
MALSURAS	2185	60,61,62,63,64,65,66,67,68,69,71	218560, 218561, 218562, 218563, 218564, 218565, 218566, 218567, 218568, 218569, 218571	1.10
MANGALWEDHA	2188	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	21884, 218860, 218861, 218862, 218863, 218864, 218865, 218866, 218867, 218868, 218869, 218831, 218835, 2188796, 218871, 218830, 218839	2.51
MOHOL	2189	60,61,62,63,64,65,66,67,68,69,31,35,796,30,39	218960, 218961, 218962, 218963, 218964, 218965, 218966, 218967, 218968, 218969, 218931, 218935, 2189796, 218930, 218939	1.41
PANDHARPUR	2186	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	218660, 218661, 218662, 218663, 218664, 218665, 218666, 218667, 218668, 218669, 218631, 218635, 2186796, 218671, 218630, 218639	1.51
SANGOLA	2187	60,61,62,63,64,65,66,67,68,69,31,35,796,71	218760, 218761, 218762, 218763, 218764, 218765, 218766, 218767, 218768, 218769, 218731, 218735, 2187796, 218771	1.31
SHOLAPUR	217	60,61,62,63,64,65,66,67,68,69,71	21760, 21761, 21762, 21763, 21764, 21765, 21766, 21767, 21768, 21769, 21771	11.00
AKOLA	724	60,61,62,63,64,65,66,67,68,69,71	72460, 72461, 72462, 72463, 72464, 72465, 72466, 72467, 72468, 72469, 72471	11.00
AKOT	7258	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	725860, 725861, 725862, 725863, 725864, 725865, 725866, 725867, 725868, 725869, 725831, 725835, 7258796, 725871, 725830, 725839	1.51
BALAPUR	7257	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72574, 725760, 725761, 725762, 725763, 725764, 725765, 725766, 725767, 725768, 725769, 725731, 725735, 7257796, 725771, 725730, 725739	2.51
BARSHI TAKLI	7255	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72554, 725560, 725561, 725562, 725563, 725564, 725565, 725566, 725567, 725568, 725569, 725531, 725535, 7255796, 725571	2.31
MALGAON	7254	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72544, 725460, 725461, 725462, 725463, 725464, 725465, 725466, 725467, 725468, 725469, 725431, 725435, 7254796, 725471	2.31
MANGRULPUR	7253	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	725360, 725361, 725362, 725363, 725364, 725365, 725366, 725367, 725368, 725369, 725331, 725335, 7253796, 725371, 725330, 725339	1.51
MURTIZAPUR	7256	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	725660, 725661, 725662, 725663, 725664, 725665, 725666, 725667, 725668, 725669, 725631, 725635, 7256796, 725671, 725630, 725639	1.51

RISOD	7251	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72514, 725160, 725161, 725162, 725163, 725164, 725165, 725166, 725167, 725168, 725169, 725131, 725135, 7251796, 725171, 725130, 725139	2.51
WASHIM	7252	60,61,62,63,64,65,66,67,68,69,31,35,796,71	725260, 725261, 725262, 725263, 725264, 725265, 725266, 725267, 725268, 725269, 725231, 725235, 7252796, 725271	1.31
ACHALPUR	7223	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	722360, 722361, 722362, 722363, 722364, 722365, 722366, 722367, 722368, 722369, 722331, 722335, 7223796, 722371, 722330, 722339	1.51
AMRAVATI	721	60,61,62,63,64,65,66,67,68,69,71	72160, 72161, 72162, 72163, 72164, 72165, 72166, 72167, 72168, 72169, 72171	11.00
CHANDURBAZAR	7227	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72274, 722760, 722761, 722762, 722763, 722764, 722765, 722766, 722767, 722768, 722769, 722731, 722735, 7227796, 722771, 722730, 722739	2.51
CHANDURRLY	7222	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72224, 722260, 722261, 722262, 722263, 722264, 722265, 722266, 722267, 722268, 722269, 722231, 722235, 7222796, 722271	2.31
CHHIKALDARA	7220	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72204, 722060, 722061, 722062, 722063, 722064, 722065, 722066, 722067, 722068, 722069, 722031, 722035, 7220796, 722071	2.31
DARYAPUR	7224	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72244, 722460, 722461, 722462, 722463, 722464, 722465, 722466, 722467, 722468, 722469, 722431, 722435, 7224796, 722471, 722430, 722439	2.51
DHARANI	7226	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72264, 722660, 722661, 722662, 722663, 722664, 722665, 722666, 722667, 722668, 722669, 722631, 722635, 7226796, 722671	2.31
MORSHI	7228	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72284, 722860, 722861, 722862, 722863, 722864, 722865, 722866, 722867, 722868, 722869, 722831, 722835, 7228796, 722871, 722830, 722839	2.51
NANDGAON	7221	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72214, 722160, 722161, 722162, 722163, 722164, 722165, 722166, 722167, 722168, 722169, 722131, 722135, 7221796, 722171	2.31
TIWASA	7225	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72254, 722560, 722561, 722562, 722563, 722564, 722565, 722566, 722567, 722568, 722569, 722531, 722535, 7225796, 722571	2.31
WARLYDWARUD	7229	4,60,61,62,63,64,65,66,67,68,69,31,35,796,30,39	72294, 722960, 722961, 722962, 722963, 722964, 722965, 722966, 722967, 722968, 722969, 722931, 722935, 7229796, 722971, 722930, 722939	2.41
AMAGAON	7189	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71894, 718960, 718961, 718962, 718963, 718964, 718965, 718966, 718967, 718968, 718969, 718931, 718935, 7189796, 718971	2.31

ARJUNI-MEROGAON	7196	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71964, 719660, 719661, 719662, 719663, 719664, 719665, 719666, 719667, 719668, 719669, 719631, 719635, 7196796, 719671	2.31
BHANDARA	7184	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,38,39	71844, 718460, 718461, 718462, 718463, 718464, 718465, 718466, 718467, 718468, 718469, 718431, 718435, 7184796, 718471, 718430, 718438, 718439	2.61
DEORI	7199	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71994, 719960, 719961, 719962, 719963, 719964, 719965, 719966, 719967, 719968, 719969, 719931, 719935, 7199796, 719971	2.31
GONDIA	7182	60,61,62,63,64,65,66,67,68,69,71	718260, 718261, 718262, 718263, 718264, 718265, 718266, 718267, 718268, 718269, 718271	1.10
GOREGAON	7187	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71874, 718760, 718761, 718762, 718763, 718764, 718765, 718766, 718767, 718768, 718769, 718731, 718735, 7187796, 718771	2.31
LAKHANDUR	7181	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71814, 718160, 718161, 718162, 718163, 718164, 718165, 718166, 718167, 718168, 718169, 718131, 718135, 7181796, 718171	2.31
MOHADI	7197	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71974, 719760, 719761, 719762, 719763, 719764, 719765, 719766, 719767, 719768, 719769, 719731, 719735, 7197796, 719771	2.31
PAUNI	7185	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71854, 718560, 718561, 718562, 718563, 718564, 718565, 718566, 718567, 718568, 718569, 718531, 718535, 7185796, 718571	2.31
SAKOLI	7186	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71864, 718660, 718661, 718662, 718663, 718664, 718665, 718666, 718667, 718668, 718669, 718631, 718635, 7186796, 718671, 718630, 718639	2.51
SALEKASA	7180	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71804, 718060, 718061, 718062, 718063, 718064, 718065, 718066, 718067, 718068, 718069, 718031, 718035, 7180796, 718071	2.31
TIRORA	7198	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71984, 719860, 719861, 719862, 719863, 719864, 719865, 719866, 719867, 719868, 719869, 719831, 719835, 7198796, 719871, 719830, 719839	2.51
TUMSAR	7183	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71834, 718360, 718361, 718362, 718363, 718364, 718365, 718366, 718367, 718368, 718369, 718331, 718335, 7183796, 718371, 718330, 718339	2.51
BULDHANA	7262	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	726260, 726261, 726262, 726263, 726264, 726265, 726266, 726267, 726268, 726269, 726231, 726235, 7262796, 726271, 726230, 726239	1.51

CHIKHALI	7264	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	726460, 726461, 726462, 726463, 726464, 726465, 726466, 726467, 726468, 726469, 726431, 726435, 7264796, 726471, 726430, 726439	1.51
DEOLGAONRAJA	7261	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72614, 726160, 726161, 726162, 726163, 726164, 726165, 726166, 726167, 726168, 726169, 726131, 726135, 7261796, 726171, 726130, 726139	2.51
JALGAONJAMOD	7266	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72664, 726660, 726661, 726662, 726663, 726664, 726665, 726666, 726667, 726668, 726669, 726631, 726635, 7266796, 726671	2.31
KHAMGAON	7263	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72634, 726360, 726361, 726362, 726363, 726364, 726365, 726366, 726367, 726368, 726369, 726331, 726335, 7263796, 726371, 726330, 726339	2.51
LONAR	7260	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72604, 726060, 726061, 726062, 726063, 726064, 726065, 726066, 726067, 726068, 726069, 726031, 726035, 7260796, 726071	2.31
MALKAPUR	7267	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72674, 726760, 726761, 726762, 726763, 726764, 726765, 726766, 726767, 726768, 726769, 726731, 726735, 7267796, 726771, 726730, 726739	2.51
MEKHAR	7268	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72684, 726860, 726861, 726862, 726863, 726864, 726865, 726866, 726867, 726868, 726869, 726831, 726835, 7268796, 726871, 726830, 726839	2.51
NANDNVA	7279	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,2,30,39	72794, 727960, 727961, 727962, 727963, 727964, 727965, 727966, 727967, 727968, 727969, 727931, 727935, 7279796, 727971, 72792, 727930, 727939	3.51
SINDKHEDARAJA	7269	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72694, 726960, 726961, 726962, 726963, 726964, 726965, 726966, 726967, 726968, 726969, 726931, 726935, 7269796, 726971	2.31
BHADRAWATI	7175	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	717560, 717561, 717562, 717563, 717564, 717565, 717566, 717567, 717568, 717569, 717531, 717535, 7175796, 717571, 717530, 717539	1.51
BRAHMAPURI	7177	60,61,62,63,64,65,66,67,68,69,31,35,796,71	717760, 717761, 717762, 717763, 717764, 717765, 717766, 717767, 717768, 717769, 717731, 717735, 7177796, 717771	1.31
CHANDRAPUR	7172	60,61,62,63,64,65,66,67,68,69,71	717260, 717261, 717262, 717263, 717264, 717265, 717266, 717267, 717268, 717269, 717271	1.10
CHUMUR	7170	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71704, 717060, 717061, 717062, 717063, 717064, 717065, 717066, 717067, 717068, 717069, 717031, 717035, 7170796, 717071	2.31

GOND PIPRI	7171	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71714, 717160, 717161, 717162, 717163, 717164, 717165, 717166, 717167, 717168, 717169, 717131, 717135, 7171796, 717171	2.31
MUL	7174	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71744, 717460, 717461, 717462, 717463, 717464, 717465, 717466, 717467, 717468, 717469, 717431, 717435, 7174796, 717471,717430, 717439	2.51
NAGBHIR	7179	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71794, 717960, 717961, 717962, 717963, 717964, 717965, 717966, 717967, 717968, 717969, 717931, 717935, 7179796, 717971	2.31
RAJURA	7173	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	717360, 717361, 717362, 717363, 717364, 717365, 717366, 717367, 717368, 717369, 717331, 717335, 7173796, 717371, 717330, 717339	1.51
SINDERWAHI	7178	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71784, 717860, 717861, 717862, 717863, 717864, 717865, 717866, 717867, 717868, 717869, 717831, 717835, 7178796, 717871	2.31
WARORA	7176	60,61,62,63,64,65,66,67,68,69,71,30,39	717660, 717661, 717662, 717663, 717664, 717665, 717666, 717667, 717668, 717669, 717671, 717630, 717639	1.30
AHERI	7133	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71334, 713360, 713361, 713362, 713363, 713364, 713365, 713366, 713367, 713368, 713369, 713331, 713335, 7133796, 713371	2.31
BHAMREGADH	7134	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71344, 713460, 713461, 713462, 713463, 713464, 713465, 713466, 713467, 713468, 713469, 713431, 713435, 7134796, 713471	2.31
CHAMORSHI	7135	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71354, 713560, 713561, 713562, 713563, 713564, 713565, 713566, 713567, 713568, 713569, 713531, 713535, 7135796, 713571	2.31
DESAIGANJ	7137	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71374, 713760, 713761, 713762, 713763, 713764, 713765, 713766, 713767, 713768, 713769, 713731, 713735, 7137796, 713771	2.31
DHANORA	7138	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71384, 713860, 713861, 713862, 713863, 713864, 713865, 713866, 713867, 713868, 713869, 713831, 713835, 7138796, 713871	2.31
ETAPALLI	7136	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71364, 713660, 713661, 713662, 713663, 713664, 713665, 713666, 713667, 713668, 713669, 713631, 713635, 7136796, 713671	2.31
GADCHIROLI	7132	4,60,61,62,63,64,65,66,67,68,69,71	71324, 713260, 713261, 713262, 713263, 713264, 713265, 713266, 713267, 713268, 713269, 713271	2.10

KURKHEDA	7139	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71394, 713960, 713961, 713962, 713963, 713964, 713965, 713966, 713967, 713968, 713969, 713931, 713935, 7139796, 713971	2.31
SIRONCHA	7131	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71314, 713160, 713161, 713162, 713163, 713164, 713165, 713166, 713167, 713168, 713169, 713131, 713135, 7131796, 713171	2.31
BHIWAPUR	7106	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71064, 710660, 710661, 710662, 710663, 710664, 710665, 710666, 710667, 710668, 710669, 710631, 710635, 7106796, 710671	2.31
BUTIBORI	7103	60,61,62,63,64,65,66,67,68,69,71	710360, 710361, 710362, 710363, 710364, 710365, 710366, 710367, 710368, 710369, 710371	1.10
HINGUA	7104	71	710471	0.10
KALMESHWAR	7118	4,71,30,39	71184, 711871, 711830, 711839	1.30
KAMPTEE	7109	31,35,796,71,30	710931, 710935, 7109796, 710971,710930	0.41
KATOL	7112	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71124, 711260, 711261, 711262, 711263, 711264, 711265, 711266, 711267, 711268, 711269, 711231, 711235, 7112796, 711271, 711230, 711239	2.51
KUHI	7100	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71004, 710060, 710061, 710062, 710063, 710064, 710065, 710066, 710067, 710068, 710069, 710031, 710035, 7100796, 710071	2.31
MOUDA	7115	60,61,62,63,64,65,66,67,68,69,30,33,39	711560, 711561, 711562, 711563, 711564, 711565, 711566, 711567, 711568, 711569, 711530, 711533, 711539	1.30
NAGPUR	712	71	71271	1.00
NARKHED	7105	4,31,35,796,71	71054, 710531, 710535, 7105796, 710571	1.31
PARSEONI	7102	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71024, 710260, 710261, 710262, 710263, 710264, 710265, 710266, 710267, 710268, 710269, 710231, 710235, 7102796, 710271	2.31
RAMTEK	7114	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71144, 711460, 711461, 711462, 711463, 711464, 711465, 711466, 711467, 711468, 711469, 711431, 711435, 7114796, 711471, 711430, 711439	2.51
SAONER	7113	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	711360, 711361, 711362, 711363, 711364, 711365, 711366, 711367, 711368, 711369, 711331, 711335, 7113796, 711371, 711330, 711339	1.51

UMRER	7116	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71164, 711660, 711661, 711662, 711663, 711664, 711665, 711666, 711667, 711668, 711669, 711631, 711635, 7116796, 711671	2.31
ARVI	7157	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71574, 715760, 715761, 715762, 715763, 715764, 715765, 715766, 715767, 715768, 715769, 715731, 715735, 7157796, 715771, 715730, 715739	2.51
DEOLI	7158	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71584, 715860, 715861, 715862, 715863, 715864, 715865, 715866, 715867, 715868, 715869, 715831, 715835, 7158796, 715871, 715830, 715839	2.51
HINGANGHAT	7153	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	71534, 715360, 715361, 715362, 715363, 715364, 715365, 715366, 715367, 715368, 715369, 715331, 715335, 7153796, 715371, 715330, 715339	2.51
SAMUDRAPUR	7151	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71514, 715160, 715161, 715162, 715163, 715164, 715165, 715166, 715167, 715168, 715169, 715131, 715135, 7151796, 715171	2.31
SELOO	7155	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71554, 715560, 715561, 715562, 715563, 715564, 715565, 715566, 715567, 715568, 715569, 715531, 715535, 7155796, 715571	2.31
TALEGAOKARANGAL	7156	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	71564, 715660, 715661, 715662, 715663, 715664, 715665, 715666, 715667, 715668, 715669, 715631, 715635, 7156796, 715671	2.31
WARDHA	7152	60,61,62,63,64,65,66,67,68,69,71	715260, 715261, 715262, 715263, 715264, 715265, 715266, 715267, 715268, 715269, 715271	1.10
BABHULGAON	7203	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72034, 720360, 720361, 720362, 720363, 720364, 720365, 720366, 720367, 720368, 720369, 720331, 720335, 7203796, 720371	2.31
DARWAHA	7238	60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	723860, 723861, 723862, 723863, 723864, 723865, 723866, 723867, 723868, 723869, 723831, 723835, 7238796, 723871, 723830, 723839	1.51
DIGRAS	7234	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72344, 723460, 723461, 723462, 723463, 723464, 723465, 723466, 723467, 723468, 723469, 723431, 723435, 7234796, 723471, 723430, 723439	2.51
GHATANJI	7230	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72304, 723060, 723061, 723062, 723063, 723064, 723065, 723066, 723067, 723068, 723069, 723031, 723035, 7230796, 723071	2.31
KALAMB	7201	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72014, 720160, 720161, 720162, 720163, 720164, 720165, 720166, 720167, 720168, 720169, 720131, 720135, 7201796, 720171, 720130, 720139	2.51

MAREGAON	7236	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72364, 723660, 723661, 723662, 723663, 723664, 723665, 723666, 723667, 723668, 723669, 723631, 723635, 7236796, 723671	2.31
MARIGAON	7237	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72374, 723760, 723761, 723762, 723763, 723764, 723765, 723766, 723767, 723768, 723769, 723731, 723735, 7237796, 723771	2.31
PANDHARKAWADA	7235	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72354, 723560, 723561, 723562, 723563, 723564, 723565, 723566, 723567, 723568, 723569, 723531, 723535, 7235796, 723571, 723530, 723539	2.51
PUSAD	7233	60,61,62,63,64,65,66,67,68,69,31,35,796,71	723360, 723361, 723362, 723363, 723364, 723365, 723366, 723367, 723368, 723369, 723331, 723335, 7233796, 723371	1.31
RALEGAON	7202	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71	72024, 720260, 720261, 720262, 720263, 720264, 720265, 720266, 720267, 720268, 720269, 720231, 720235, 7202796, 720271	2.31
UMARKHED	7231	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,30,39	72314, 723160, 723161, 723162, 723163, 723164, 723165, 723166, 723167, 723168, 723169, 723131, 723135, 7231796, 723171, 723130, 723139	2.51
WANI	7239	60,61,62,63,64,65,66,67,68,69,31,35,796,71	723960, 723961, 723962, 723963, 723964, 723965, 723966, 723967, 723968, 723969, 723931, 723935, 7239796, 723971	1.31
YEOTMAL	7232	60,61,62,63,64,65,66,67,68,69,71	723260, 723261, 723262, 723263, 723264, 723265, 723266, 723267, 723268, 723269, 723271	1.10
CANACONA (QUEPEM)	8346	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,2	83464, 834660, 834661, 834662, 834663, 834664, 834665, 834666, 834667, 834668, 834669, 834631, 834635, 8346796, 834671, 83462	3.31
MARGAO	8342	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,2	83424, 834260, 834261, 834262, 834263, 834264, 834265, 834266, 834267, 834268, 834269, 834231, 834235, 8342796, 834271, 83422	3.31
PANJI	832	60,61,62,63,64,65,66,67,68,69,71	83260, 83261, 83262, 83263, 83264, 83265, 83266, 83267, 83268, 83269, 83271	11.00
PONDA	8343	4,31,35,796,71,2	83434, 834331, 834335, 8343796, 834371, 83432	2.31
SANGUEM	8345	4,60,61,62,63,64,65,66,67,68,69,31,35,796,71,2	83454, 834560, 834561, 834562, 834563, 834564, 834565, 834566, 834567, 834568, 834569, 834531, 834535, 8345796, 834571, 83452	3.31
Total new additional TIs generated from Unutilized-Sub levels for Maharashtra LSA (82.37 Million)				**823.66**

*As per the data provided by Department of Telecommunication (DoT)

ANNEXURE- IX

(Refer Para 2.34 of Chapter II

1. Number of SIP customers, TIs allocated, and average TIs allocated per SIP customer tabulated below:

Sl. No.	TSPs	No. of SIP Customers (including retail and enterprise) #	Total Fixed-line TIs allocated	TIs allocated per SIP customers
1	TSP-1	4,643	1,423,988	307
2	TSP-2	4,261	695,270	163
3	TSP-3	2,795	469,281	168
4	TSP-4	6,718	1,063,280	158
5	TSP-5	986	708,634	719
6	TSP-6	545	72,426	133
7	TSP-7	188	5,640	30
8	TSP-8	129	64,096	497
9	TSP-9	638,206	638,206	1
	Total	**658,471**	**5,140,821**	**8**

Data provided by TSP as of 30.09.2024

2. Analysis of TIs allocated for SIP trunk connections to the enterprise customers in 12 SDCAs where few TSPs had higher TI utilization shows that many enterprise entities have higher TIs per Mbps and the same are tabulated below:-

SDCA Name	Enterprise entity to whom SIP services provided by the TSP	Bandwidth leased (in Mbps) for providing SIP service (between TSP PoP and Entity)	Fixed-line TIs	TIs per Mbps
Bokaro	Enterprise -1	3	71	24
Nabha	Enterprise -2	1	199	199
Nabha	Enterprise -3	1	198	198
Gurgaon	Enterprise -4	7	999	143

Gurgaon	Enterprise -5	7	799	114
Gurgaon	Enterprise -6	2	100	50
Chandigarh	Enterprise -7	3	599	200
Chandigarh	Enterprise -8	1	199	199
Chandigarh	Enterprise -9	3	499	166
Chandigarh	Enterprise -10	5	600	120
Ghaziabad	Enterprise -11	7	999	143
Ghaziabad	Enterprise -12	10	599	60
Lucknow	Enterprise -13	2	500	250
Lucknow	Enterprise -14	3	200	67
Rajpura	Enterprise -15	5	999	200
Rajpura	Enterprise -16	1	199	199
Roorkee	Enterprise -17	7	1299	186
Roorkee	Enterprise -18	7	900	129

Analysis of TIs allocated for PRI connections to the enterprise customers in 12 SDCAs where few TSPs had higher TI utilization shows that many enterprise entities have higher TIs per Mbps and the same are tabulated below:-

SDCA Name	Enterprise entity to whom PRI services provided by the TSP	Bandwidth leased (in Mbps) for providing PRI service (between TSP PoP and Entity)	Fixed line TIs	TIs per Mbps
Bilaspur	Enterprise -1	2	1000	500
Bilaspur	Enterprise -2	2	100	50
Bhilwara	Enterprise -3	2	400	200
Bhilwara	Enterprise -4	2	200	100
Bokaro	Enterprise -5	2	5000	2500
Bokaro	Enterprise -6	2	1000	500
Chandigarh	Enterprise -7	2	1992	996
Chandigarh	Enterprise -8	2	1000	500
Chandigarh	Enterprise -9	2	900	450
Chandigarh	Enterprise -10	2	800	400
Ghaziabad+Dadri	Enterprise -11	2	2000	1000
Ghaziabad+Dadri	Enterprise -12	2	1001	500
Ghaziabad+Dadri	Enterprise -13	2	900	450
Ghaziabad+Dadri	Enterprise -14	2	400	200
Gurgaon	Enterprise -15	2	4000	2000
Gurgaon	Enterprise -16	2	1999	1000

Gurgaon	Enterprise -17	2	999	500
Gurgaon	Enterprise -18	2	900	450
Gurgaon	Enterprise -19	2	699	350
Gurgaon	Enterprise -20	2	600	300
Gurgaon	Enterprise -21	2	499	250
Lucknow	Enterprise -22	2	850	425
Lucknow	Enterprise -23	2	300	150
Roorkee	Enterprise -24	2	1500	750
Roorkee	Enterprise -25	2	899	450
Roorkee	Enterprise -26	2	500	250

ANNEXURE- X

(Refer Para 2.41.3 of Chapter II)

Telecommunication Identifier charging method adopted in Various Countries

Sr. No.	Name of country	Method adopted	Existing charges
1	**Australia**[10]	Application charges, Annual Numbering Charges and auction for smart numbers	• Total Annual Numbering Charge (ANC) revenue target for 2024 is $60 million from numbers held by providers. • The base number charge for the year 2023 was $0.6080904673 (for a ten-digit number). • The ANC does not apply to the Geographic numbers, community service numbers.
2	**Singapore**[11]	Bidding for Choice Number Levels, Different charges fixed for different services.	• The minimum bid price is set at S$500,000 for a choice number level of the format 'AAAA XXXX' (e.g. '6666 XXXX') and $150,000 for all other choice number levels. • Numbers with certain identifiable patterns in the last 4 digits are identified as "Golden Numbers." The 8-digit PSTN/mobile golden numbers ending with '0000' and '9999' are reserved for national interest purposes.

[10] Federal Register of Legislation - Telecommunications (Annual Charge) Determination 2014

[11] https://www.imda.gov.sg/-/media/imda/files/regulation-licensing-and-consultations/frameworks-and-policies/numbering/national-numbering-plan-and-allocation-process/imda-national-numbering-plan.pdf

			• PSTN and Cellular Golden Number* fee is S$ 50 and Paging Golden Number fee is S$D 30 With 486 Golden Numbers in a number level (i.e. 10,000 numbers), each PSTN, cellular, IPT or UCDO number level is charged at $24,300. Correspondingly, each paging number level is $14,580.
3	**Belgium**[12]	Administrative and Annual charge	• Annual charges for normal geographic numbers for the year 2024: €151 • Annual charges for mobile number for the year 2024: €2254
4	**Finland**[13]	Annual charge	• Annual Charge for both public fixed and mobile - €0.16 per subscription
5	**UK**[14]	Annual charge	• £0.1 per 365 days for every Specified Geographic Number
6	**Lithuania**[15]	Monthly	• Public fixed telephone communication service number: 0.006 €/month. • Public mobile telephone communication service number: 0.006 €/month • Short four-digit telephone number 52.42 €/month • Short five-digit telephone number 5.24 €/month

[12] https://www.bipt.be/file/6103c41969844d308979992d7f84d51e59927e1e/08e3b1b2ac8179b2e5f2d03bc1c4422324341db7/tarieven-rechten-dossierskosten-2024.xlsx
[13] https://www.traficom.fi/en/puhelinverkon-numerointimaksut
[14] Ofcom document
[15] https://www.rrt.lt/en/electronic-communications/numbering/

			• Service number from the 7XXXXXXX series: 0.006 €/month. • Service number from the 8XXXXXXX or 9XXXXXX series: 0.52€/month.
7	**Greece**[16]	Assignment or Reservation fees and Annual usage fees	• The providers of telecommunications networks or/and services that numbering resources are obliged to pay assignment fees or reservation fees, and annual usage fees. Fees are determined in proportion to the administrative cost and the scarcity of the assigned resources.
8	**Hongkong** [17]	Annual charge	• Annual number fee of $3 for each subscriber number allocated or assigned to the licensee.
9	**Bulgaria**[18]	Annual charge	• Annual fee charged for the use of an individually allocated scarce resource. Amount is determined on the basis of criteria set forth by the law, such as availability and economic value of numbers from particular number ranges etc.

[16] https://www.eett.gr/opencms/export/sites/default/EETT_EN/Electronic_Communications/Telecoms/Numbering/DecisionNewNNP.pdf
[17] https://www.coms-auth.hk/filemanager/en/content_54/fee_validity_e.pdf
[18] https://crc.bg/files/budjet.pdf

10	**Kuwait**[19]	Service Fee	• Annual service fee for mobile number domain eight-digit number ranges - Monthly fee of 500 Fils for every number used or reserved paid upfront. Reserving or allocation of numbers for every 10,000 digits and their multiplications. • Annual service fee for 3-digit numbers is 5000 KD
11	**Netherlands**[20]	Application fee and Annual charge	• The allocation costs for mobile voice numbers is a one-time fee of €310 per 10,000 numbers. The annual cost is €89.20 per 10,000 issues.
12	**Algeria**[21]	Annual charge	• Annual fees for a Non-Geographic Long Number of Platinum category is: DZD 80,000 (per unit)
13	**Switzerland**[22]	Allocation fee and Annual Administrative fee	• Telephone numbers for fixed network and mobile telephone services are assigned in blocks of 10,000 individual numbers. • An administrative fee of CHF 420.00 is levied for the allocation of a block of E.164 numbers. • Annual administrative fee of CHF 200.00 is levied for a block of 10,000 numbers.
14	**Poland**[23]	Annual fee	• PLN 0.35 for a subscriber number

[19] Communication & Information Technology Regulatory Authority Services (citra.gov.kw)
[20] Requesting Numbers and Codes Telecom Providers | ACM.nl
[21] Numbering - arpce.dz
[22] https://www.bakom.admin.ch/dam/bakom/en/dokumente/bakom/telekommunikation/nummerierung_telefonie/nummernbloecke_und_kennzahlen/allgemeine_informationenzurzuteilungvonnummernbloeckenundkennzah.pdf.download.pdf/E164-Information-EN-20210101.pdfv
[23] https://www.uke.gov.pl/gfx/uke/userfiles/m-pietrzykowski/telecommunications_act_en.pdf

			• PLN 1,800,000 for a public land mobile network indication code (PLMN) • PLN 28 for a national intelligent network number • PLN 12,000 for a signalling point number • PLN 55 for every 8 closed user group (CUG) numbers. • PLN 1,200 for a mobile network code (MNC) • PLN 1,000 for a routing number (NR).
15	**Nigeria**[24]	Renewal fee	• Operators seeking to obtain Fixed and Mobile Numbers are mandated to pay a renewal fee of ₦20 per line.
16	**Bahrain**[25]	Reservation fee, Application fee and Annual Assignment fee	• Reservation fee is set at 80% of the Assignment Fee. • Application fee of BHD 25 payable for each application made for a reservation or an assignment of a Number Block. • The Assignment Fee per 8-digit number is set at BHD 0.100 per annum. • The Assignment Fee will be increased by a factor of 10 for each one-digit reduction in the length of the number.

[24] National Numbering (ncc.gov.ng)
[25] https://tra-website-prod-01.s3-me-south-1.amazonaws.com/Media/Documents/TRA_Fees/20240226111310619_pvql0shv_zhx.pdf

			• The Assignment Fee for any number that is in excess of 8 digits is BHD 0.010 (10 Fils) per annum.
17	**South Africa**[26]	Annual fees	• Fees payable by licensees for the allocation of numbers to recover the administration costs
18	**Portugal**[27]	Annual fees	• The proportionality condition of fees applied for the use of numbers requires the principle of 'occupier-payer' to be taken into account, reflecting both. • the volume of resources whose rights of use are granted or reserved in the minimal fraction table defined by type of resource, and • the period to which this use corresponds.
19	**Denmark**[28]	Annual number charge	• Annual number charge on assigned numbers, number series and codes

[26] https://www.icasa.org.za/legislation-and-regulations/numbering-plan-regulations
[27] ANACOM - Administrative Rule no. 1473-B/2008, of 17 December
[28] https://www.eng.klimadatastyrelsen.dk/Media/638294944110731460/Guide%20to%20the%20Danish%20Numbering%20Plan.pdf

LIST OF ACRONYMS

Acronym	Description
5G	5th Generation
ACMA	Australian Communications and Media Authority
ACQ	All-Call Query
AGR	Adjusted Gross Revenue
ANC	Annual Numbering Charge
AR	Augmented Reality
BHD	Bahraini Dinar
BIPT	Belgian Institute for Postal Services and Telecommunications
CAC	Carrier Access Code
CC	Country Code
CAPEX	Capital Expenditure
CHF	Swiss franc (Official currency of Switzerland)
CIC	Carrier Identification Code
CLI	Calling Line Identification
CNPN	Captive Network Non-Public
CP	Consultation Paper
CTIA	Cellular Telecommunications and Internet Association
DB	Data Base
DID	Direct Inward Dialing
DoT	Department of Telecommunications
DZD	Algerian Dinar
ERSS	Emergency Response Support System
FLRN	Fixed Line Routing Number
FTTH	Fiber to the Home
FWA	Fixed Wireless Access
GMSC	Gateway Mobile Switching Centre
HQ	Headquarters

ICT	Information and Communication Technology
IDD	International Direct Dialing
IIC	International Identity Code
ILD	International Long Distance
IMDA	Infocomm Media Development Authority
IMSI	International Mobile Subscriber Identity
IN	Intelligent Network
INP	Intelligent Network Portability
IoT	Internet of Things
IP	Internet Protocol
IPT	IP Telephony
ITFS	International Toll-Free Service
ITU	International Telecommunication Union
ITU-T	International Telecommunication Union- Telecommunication Standardization Sector
KD	Kuwaiti Dinar
KYC	Know Your Customer
L1	Level- 1
LDCA	Long Distance Charging Area
LDCC	Long-Distance Charging Centre
LEs	Local Exchanges
LRN	Location Routing Number
LSA	License Service Area
M2M	Machine-to-Machine
MCC	Mobile Country Code
NLSA	National License Service Area
MNC	Mobile Network Code
MNP	Mobile Number Portability
MNPSP	Mobile Number Portability Service Provider

MSC	Mobile Switching Centre
MSISDN	Mobile Station International Subscriber Directory Numbers
MSS	Mobile Switching Centre Server
MVNO	Mobile Virtual Network Operator
NDC	National Destination Code
NLD	National Long Distance
NNI	Network-Network Interface
NNP	National Numbering Plan
NPA	Numbering Plan Area
NSN	National Significant Number
OEM	Original Equipment Manufacturer
PKI	Public Key Infrastructure
PLMN	Public Land Mobile Network
PLN	Polish zloty (National Currency of Poland)
POI	Point of Interconnect
PSAP	Public Safety Answering Point
PRI	Primary Rate Interface
PRS	Premium Rate Services
PSTN	Public Switched Telephone Network
QoS	Quality of Service
RURA	Rwanda Utilities Regulatory Authority
SCP	Service Control Point
SDCA	Short Distance Charging Area
SDCC	Short Distance Charging Centre
SDP	Service Data Point
SIP	Session Initiation Protocol
SIM	Subscriber Identification Number
SMS	Short Message Service
SN	Subscriber Number

SP	Signaling Point
SS7	Signaling System No. 7
STD	Subscriber Trunk Dialing
TAX	Trunk Automatic Exchange
TCPR	Telecom Consumer Protection Regulation
TDM	Time Division Multiplexing
TIR	Telecommunication Interconnection Regulations
TMG	Trunk Media Gateway
TI	Telecommunication Identifier
TSP	Telecommunication Service Provider
UAS	Universal Access Service
UCC	Unsolicited Commercial Communication
UCDO	User Centric Data-Only services
UL	Unified License
VAS	Value Added Services
VR	Virtual Reality