



**MNP INTERCONNECTION TELECOM SOLUTIONS INDIA PVT. LTD. (MITS)**

Response to

Consultation Paper No. 13/2022 dated November 29, 2022

on

Introduction of Calling Name Presentation (CNAP)

in Telecommunication Networks

## **Summary:**

We thank TRAI for formulating a comprehensive Consultation Paper on the 'Introduction of Calling Name Presentation (CNAP) in Telecommunication Networks' Safeguarding consumer interests is of paramount importance for the all the stakeholders. We believe that the introduction of CNAP in Telecommunication Networks, would restore Trust, Transparency & Acceptability in the customer ecosystem. This is also a huge step in the right direction for Indian businesses and Government alike. CNAP has the immense potential for bringing about transformative change in customer behavior relative to telephone calls and in addition, it would help in curbing robocalls, spam calls, and fraudulent calls. It would also lead to better and stricter implementation of UCC regulations.

Integrating with other Centralized Platform like MNP would reap additional benefits, beyond the horizon to switch operators/providers & could also support to control fraudulent porting / financial frauds. It is thus critical to frame clear, enabling regulatory provisions for the deployment of CNAP that support innovation while protecting the interest of the consumer, enterprise businesses and the Industry. We recommend that TRAI facilitates a regulatory framework which leverages hybrid model (Global practices and existing resources), while ensuring Trust of Customer in the System and allowing Indian TSPs to ably serve the market.

## **BACKGROUND**

MNP Interconnection Telecom Solutions India Pvt. Ltd., hereinafter referred to as "MITS", was granted a license to provide MNP services in Zone 2 (South and East of India) in March, 2009. MITS has provided flawless service in Zone 2 (South and East region) to the industry in the last 11 years of service. Further, MITS has supported both the Regulator, Telecom Regulatory Authority of India ("TRAI"), and the Licensor, the Department of Telecommunications ("DOT"), at various stages including implementation of Corporate porting, National porting and most recently the implementation of new MNP process defined in the seventh amendment to the MNP regulation. We have always followed and advocated use of international best practices based on immense experience and expertise of MITS's & it's parent, iconectiv LLC which is majority owned by Ericsson, Sweden.

MITS is an Indian company with expertise in centralized services. We have a robust, secure and an efficient software and systems performing optimally and has served the telecom industry admirably. Being connected to all TSPs, ILD operators and all law enforcement agencies, MITS can be immensely helpful to implement the CNAP service in India. Related to the proposed

initiative, our parent company iconectiv is the centralized Policy Administrator for the STIR/SHAKEN service, that is successfully operational in the US and similar technology can be adapted as per Indian market requirements.

To summarize:

1. CNAP technology should be facilitated as mandatory service in the best interest of the Consumer.
2. There should not be any scope for optional service as it will dilute the overall purpose of CNAP Services.
3. This CNAP functionality can be rolled out LSA-wise with proper timeline & commitment from all the stakeholders.
4. The integration of CNAP should be done on the basis of CAF and can be updated at any time during the active status of that subscriber.
5. This service should be provided by the neutral third party under the able guidance/frame work from TRAI. As per the Q-5, Model 4 would be best suited to roll out CNAP with minimal changes in the ecosystem.
6. MITS has relevant expertise in India to rolling out & handling large projects and managing all the stakeholders, at the same time following Regulatory ambit from compliance perspective.
7. The security and data privacy concerns are of primary importance and all relevant stakeholders should be required to comply with the same under appropriate license/ registration.

## **Issues for Consultation & Response from MITS**

Q1. Whether there is a need to introduce the Calling Name Presentation (CNAP) supplementary service in the telecommunication networks in India?

### **MITS Response:**

**Yes**, MITS is of the opinion that it is an excellent initiative by TRAI. Today, there is a need for higher levels of trust in calls. Significant damage caused by phone scams are seen as a key driver of customer dis-satisfaction and likelihood of missing out on important phone calls from legitimate enterprises, for genuine offers/ service / issues. There is tremendous pressure on both policy makers and TSPs (from their customers) to help address the effects of the increasing prevalence of fraudulent calling and phone scammers. The introduction of CNAP in India can address these concerns and help reduce fraud which is perpetrated through robocalling, spam and fraudulent calls.

Q2. Should the CNAP service be mandatorily activated in respect of each telephone subscriber?

### **MITS Response:**

**Yes**, the service is required to be mandatorily activated for each Mobile subscriber to prevent fraudulent activities and ensure an end to end secure and trusted communication. Additionally, a robust process needs to be framed to update the subscriber information in a timely and accurate manner.

Q3. In case your response to the Q2 is in the negative, kindly suggest a suitable method for acquiring consent of the telephone subscribers for activation of CNAP service.

### **MITS Response:**

The CNAP service should not be made optional and existing / new subscriber must be informed about the same through various mode of communication available at TSP end. Calling party should always have the right to know who is calling. A uniform implementation is the only way to limit fraud.

Q4. Should the name identity information provided by telephone consumers in the Customer Acquisition Forms (CAFs) be used for the purpose of CNAP? If your answer is in the negative, please elaborate your response with reasons.

### **MITS Response:**

**Yes**, the identity information for existing subscribers should be taken from the existing CAF. There is a possibility that an update of the identity information is required for existing subscribers (as accurate identity information is required going forward). This will be a one-time activity to create Master CNAP Database and the same can be facilitated by the TSPs to a Central Neutral Party to

maintain Master CNAP Database using best security practices and standards to manage and transact personal identifiable information e.g. encrypt all data. In case of a new connection / porting, the identity information should be taken from the CAF which should be a mandatory field.

Q5. Which among the following models should be used for implementation of CNAP in telecommunication networks in India?

(a) Model No. 1, in which a CNAP database is established and operated by each TSP in respect of its subscribers and the name information is sent by the originating TSP to the terminating TSP during the process of call set up; or

(b) Model No. 2, in which a CNAP database is established and operated by each TSP in respect of its own subscribers. The terminating TSP dips into its MNP database to determine the originating TSP of the calling party and then performs a CNAP lookup on the CNAP database of the originating TSP; or

(c) Model No. 3, in which a centralized CNAP database is established and operated by a third party with an update mechanism from each TSP in respect to their subscribers; the terminating TSP performs CNAP lookup from the centralized CNAP database at the time of receiving a call; or

(d) Model No. 4, in which a centralized CNAP database is established and operated by a third party, and individual CNAP databases are established by all TSPs; the TSPs keep a copy of the centralized database and perform local CNAP lookup at the time of receiving a call; or

(e) Any other suitable model for implementation of CNAP along with a detailed description of the model.

**MITS Response:**

The above suggested four options appropriately cover all the possibilities. Every option however has its own advantages and disadvantages. The below table summarizes the pros and cons of each of the suggested model.

Option	Advantages	Disadvantages
<b>Model No. 1</b> , in which a CNAP Database is established and operated by each TSP in respect of its subscribers and the name information is sent by the originating TSP to the terminating TSP during the process of call set up	<ol style="list-style-type: none"> <li>Smaller database to be maintained by each (originating) TSP.</li> <li>Easy management of subscriber data as TSP needs to maintain updates to its own subscriber base.</li> </ol>	<ol style="list-style-type: none"> <li>CNAP information will be required to be transmitted to the terminating TSP. There could be compatibility issue / technical limitations, which may lead to additional burden on intermediate Networks.</li> <li>Relatively high call setup time as originating TSP performs other look ( IN / MNP etc.) up as well.</li> </ol>

Option	Advantages	Disadvantages
<p><b>Model No. 2</b>, in which a CNAP Database is established and operated by each TSP in respect of its own subscribers. The terminating TSP dips into its MNP database to determine the originating TSP of the calling party and then performs a CNAP lookup on the CNAP database of the originating TSP</p>	<ol style="list-style-type: none"> <li>1. Smaller database to be maintained by each (originating) TSP.</li> <li>2. Easy management of subscriber data as TSP needs to maintain updates to its own subscriber base.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increased call setup time as terminating TSP will need to perform lookup, once for determining the CNAP lookup in their system and in lieu of the querying the originating TSP network.</li> <li>2. Decrease in overall Call Completion rate as the dependency is on the Originating TSP to provide accurate input.</li> <li>3. Unnecessary burden on the intermediate Network to upgrade.</li> </ol>
<p><b>Model No. 3</b>, in which a centralized CNAP database is established and operated by a third party with an update mechanism from each TSP in respect to their subscribers; the terminating TSP performs CNAP lookup from the centralized CNAP database at the time of receiving a call</p>	<ol style="list-style-type: none"> <li>1. Centralized database will be easy to maintain and can be regulated in a uniform manner.</li> </ol>	<ol style="list-style-type: none"> <li>1. The call setup time will be higher in case the terminating TSP performs a CNAP lookup from a DB (though centralized) which is outside its internal network.</li> <li>2. Decrease in overall Call Completion rate as the dependency is on the Originating TSP to provide the input.</li> </ol>
<p><b>Model No. 4</b>, in which a centralized CNAP database is established and operated by a third party, and individual CNAP databases are established by all TSPs; the TSPs keep a copy of the centralized database and perform local CNAP lookup at the time of receiving a call</p>	<ol style="list-style-type: none"> <li>1. Maintaining a centralized database and updating the TSP local database is already in a regulated framework for MNP service. In this arrangement, compliances can be ensured by the authorities.</li> <li>2. Copy of centralized database at TSP end will ensure the least delay in call setup.</li> <li>3. Better operational management of a local database as they can perform housekeeping activities. This is similar to a database TSPs maintain for MNP updates.</li> <li>4. Call Completion Rate remain the same.</li> <li>5. Call setup time will be a lower in this case as it is within Terminating TSP environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. A relatively bigger database will have to be maintained by central entity and also the individual TSPs.</li> </ol>

Option	Advantages	Disadvantages
	6. No need to upgrade intermediate Network.	

MITIS is of the opinion that Model No. 4 is most suitable given the requirements on call setup time, compliances and ease of operations. We would like to emphasize that a similar model of centralized clearing house is working in MNP service where a central database is maintained and MNP updates are sent to TSPs. In order to implement the CNAP service, a central entity like MITIS can be a preferred option as we are experienced in giving similar service for the last 11 years. MITIS is already connected to all TSPs so the turnaround time and inter-operability will not be a challenge. As the operator network will evolve in future and we migrate to SIP based calling, it is a possibility that if a TN is being spoofed at the OSP, then the TSP will unknowingly display the accurate Calling Name associated with the spoofed TN. This is where solutions involving STIR/SHAKEN can be introduced so that OSP could attest the validity of the call before it passed downstream to the TSP.

Q6. What measures should be taken to ensure delivery of CNAP to the called party without a considerable increase in the call set up time?

**MITIS Response:**

MITIS is of the view - if the terminating TSP delivers the CNAP, it will have to perform a CNAP lookup in its internal CNAP DB (as suggested in response to Q5) and call setup time can be optimized. The key benefits are highlighted in response to Q-5.

Q7. Whether the existing telecommunication networks in India support the provision of CNAP supplementary service? If no, what changes/additions will be required to enable all telecommunication networks in India with CNAP supplementary service? Kindly provide detailed response in respect of landline networks as well as wireless networks.

**MITIS Response:**

Although there has been a constant modernization efforts done by both wireless and wireline service providers to upgrade their infra / telecommunication network, specifics to this question can be answered accurately by the service providers.

Q8. Whether the mobile handsets and landline telephone sets in use in India are enabled with CNAP feature? If no, what actions are required to be taken for enabling CNAP feature on all mobile handsets and landline telephone sets?

**MITIS Response:**

We don't have any comments on this question and same can be appropriately answered by service providers and handset manufacturers.

Q9. Whether outgoing calls should be permitted from National Toll-Free numbers? Please elaborate your response.

**MITIS Response:**

As many businesses / enterprises use national toll free numbers, it will be beneficial for such entities to allow outgoing calls from the same number. Receiving calls from the same toll free number as the user may have used to make an outgoing call augmented by a CNAP will give the subscriber more confidence in engaging with the enterprises. Introduction of CNAP will ensure the display of accurate information whenever a call is originated by the toll-free number.

Q10. In case the response to the Q9 is in the affirmative, whether CNAP service should be activated for National Toll-Free numbers? If yes, please provide a mechanism for its implementation.

**MITIS Response:**

. This is a case of lawful TN spoofing. A toll free service provider should be able to define the single / multiple TNs (used in the background) and when they want the toll free number to be displayed, same can be done as per what is defined in the CNAM DB.

Q11. Whether CNAP service should be implemented for 140-level numbers allocated to registered telemarketers?

**MITIS Response:**

Yes, the CNAP service should be implemented for 140 level numbers for the registered telemarketers. Although with the stringent and regulated UCC framework the registration and management of telemarketers have streamlined, the inclusion of CNAP will ensure display of accurate information as well of the enterprise identity thereby reducing chances of frauds.



Q12. If your answer to Q11 is in the affirmative, then kindly elucidate the technical considerations for implementing CNAP service for registered telemarketers so that the name identity of the principal entity may be presented to the called party.

**MITS Response:**

. For implementing CNAP service for registered telemarketers, the subscriber registered in the CNAM DB would have the preferred or alternate display telephone number and Calling Name to be used by the TSP.

Q13. Whether the bulk subscribers and National Toll-free numbers should be given a facility of presenting their 'preferred name' in place of the name appearing in the CAF? Please elaborate your response.

**MITS Response:**

While it will be ideal to allow the facility of 'preferred name' but there needs to be stringent guidelines and enhanced verification to ensure the correct use of this facility.

Q14. In case the response to the Q13 is in the affirmative, what rules should govern the implementation of such a facility?

**MITS Response:**

If preferred name facility is opted, it should be very close to the actual identity information (as per CAF). Being completely different / using short form of the actual identity will not help in identifying the calling party (individual or enterprise). It is also suggested to use preferred name in addition to the actual identity information (e.g., registered entity name) for an effective implementation.

Q15. Whether there is a requirement of any amendment in telecommunication service licenses/ authorizations in case CNAP is introduced in the Indian telecommunication network? Please provide a detailed response.

**MITS Response:**

The amendments of telecommunication service licenses for service provider can be shared by the service providers. We would like to share the below amendments applicable for MITS existing license in case the authorities decide to grant the responsibility to MITS as the third party managing the Centralized CNAP database.

1. Allow MITS to provide CNAP service in India
2. Update Technical conditions with respect to infra requirements
3. Update Security requirements so as to comply with consumer data protection

Q16. Whether there are any other issues/ suggestions relevant to the subject? If yes, the same may be furnished with proper justification.

**MITS Response:**

Below are some of the common issues / suggestions that MITS would like to highlight.

Issues:

1. How will it be ensured that accurate subscriber / enterprise information is displayed. If there are any subscriber complaints, what will be the mechanism to resolve them?
2. If CNAP look up is not successful (in either of the option), should the call mature? If Yes, what should be displayed as subscriber identity?
3. As numbers get disconnected the same must be transmitted to the CNAM DB for data accuracy

Suggestions:

1. Updates by TSPs in the CNAM DB should be on almost real time basis. As and when there is an update of Subscriber Information, it should be reflected within 2 - 4 hours.
2. Considering the huge DB size to hold / manage subscriber data, retention period of subscriber information must be decided in advance for optimal system planning.