



COAI Response on Consultation Paper on Introduction of Calling Name Presentation (CNAP) in Telecommunication Networks

We thank the Authority for providing us the opportunity to share the response to this consultation paper on Calling Name Presentation (CNAP) in Telecommunication Networks.

A summary of our submission is as follows:

1. The Calling Name Presentation, or CNAP for short, is a feature that would provide an individual with information about the calling party. CNAP may serve as a good to have reliable supplementary service which would provide the details of the calling party to the party receiving the call. This service would enable the customer with the option to accept any call which he desires.
2. However, it is important to note that there is already a provision of Calling line identification Presentation (hereinafter referred to as CLIP) which is a supplementary service that is provided by the TSPs to its consumers. This service displays the number of the calling party on the screen of the recipient's device.
3. We submit that in addition to the CLIP service, there is also a "Do Not Disturb" (hereinafter referred to as DND) service which Telecom Regulatory Authority of India (herein after referred to as TRAI) has launched to prevent unsolicited communications from unregistered telemarketers. This regulation of TRAI has significantly reduced the telemarketing calls and frauds.
4. It is also pertinent to throw light on the fact that there are similar services from crowd sourcing apps, such as True Caller and various other apps, that are already readily available which are being used by the subscribers in order to figure out the person who is calling. Thus, the CNAP service, would only render duplication of a feature/service that is already in use, which would further cause dilemma to the party receiving the call.
5. While there are benefits which may be derived by the subscribers from the facility of CNAP service, there are also several challenges towards implementation of CNAP in India.
6. **One of the significant obstacles in implementing CNAP would be the fact that TDM based interconnection between TSPs does not support CNAP. Further, there are no standards for CNAP over 2G/3G networks and hence, there is no ready solution available for the same. Even if the solution is developed and deployed, it would require extensive testing before being assured of its proper working. Besides, there are certain legacy nodes in our member network, where it would not be feasible to deploy CNAP.**



7. Another major **challenge is with regard to handsets as not all handsets are capable of supporting CNAP functionalities.** This perpetuates the confusion surrounding the applicability of CNAP and makes it even more difficult for the TSPs to implement CNAP. Most likely the earlier feature-phone handsets (like 2G handsets) will not support CNAP. Even the recent smartphones would require software updates. Even such software upgrade would be challenging for the smartphones which have crossed software upgrade cycles as provided by handset manufacturers.
8. Another major detrimental effect of implementation of CNAP feature is that it will require changes in call flow thereby resulting in longer call setup time, which would make customers unhappy and highly dissatisfied with the service provided.
9. We submit that, since the data of the consumers would be used for the implementation of the CNAP feature, it is important to keep in mind that this proposal needs to adhere to the data privacy laws. This is likely to cause hiccups regarding the implementation of CNAP.
10. We would also like to highlight that adoption of CNAP would place a significant financial burden on TSPs due to the high cost that they will bear, for the complicated and extensive architecture and circle-wise set up required including separate servers. specifically for CNAP which is only additionally going to burden the TSPs.
11. Furthermore, given that handset manufacturers and OS providers have control over the data obtained through the CNAP facility, this could result in the breach of subscriber data privacy as the manufacturers of mobile devices and OS providers would amass subscriber data for the entire country. This would be biggest concern related to privacy and confidentiality of entire country's subscriber information, which would be akin to building up of Name and Mobile Number database as is in Aadhaar database, with 3rd parties.
12. All the four models mentioned in the paper involves substantial latency and huge cost for implementation besides risk of subscriber information with 3rd party in some models. In some models, it would also pose risks of CLI spoofing through calls originating outside India, which can lead to more frauds/spams etc. Hence, we do not recommend CNAP implementation through any of these models.
13. Considering **technical, privacy and costs related concerns and existing mechanism pertaining to TCCCPR in place,** we submit that **implementation of CNAP should NOT be mandatory and should be kept optional for the TSPs. Implementation of CNAP should be left to TSPs and they may consider implementing the same keeping the market dynamics / business case in mind.**
14. Further, keeping in mind that the TRAI has come up with the Consultation Paper on Calling Name Presentation, we would like to know whether there exists a study that quantifies benefits of CNAP to the consumers in the Indian context.



15. Therefore, we submit that a detailed cost benefit analysis should be conducted before adoption of CNAP, if at all the implementation of CNAP is to be considered in India. **Thus, TRAI must carry out the Regulatory Impact Assessment (RIA) before coming out with any Recommendation.**

16. Given the fact that implementation of CNAP involves technical complexities, **it is extremely important that the draft Recommendation may kindly be shared by the Authority** with the industry for comments and inputs prior to finalizing the same.

It is with this background in mind that we provide our response to questions raised by the TRAI in the paper.

Q.1. Whether there is a need to introduce the Calling Name Presentation (CNAP) supplementary service in the telecommunication networks in India?

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Q.2. Should the CNAP service be mandatorily activated in respect of each telephone subscriber?

COAI Response:

- a. CNAP may serve as a good to have reliable supplementary service which would provide the details of the calling party to the party receiving the call. This service would enable the customer with the option to accept any call which he desires.
- b. However, there is already a provision of CLIP (Calling line identification Presentation) as supplementary service which is being provided by the TSPs to its consumers. This service provides the calling party's number which is displayed on the called party's mobile.
- c. In addition to the CLIP service, there is "Do Not Disturb" (DND) service which TRAI has launched to prevent unsolicited communications from unregistered telemarketers.
- d. Subscribers also have access to similar services from crowd sourcing apps, such as True Caller are already available and are being used by the subscribers.
- e. While there are benefits which may be derived by the subscribers from the facility of CNAP service, there are also several challenges towards implementation of CNAP in India.



- f. A big challenge which the industry faces regarding implementation of CNAP is that given the present TDM based interconnection between TSPs, it will NOT be feasible to implement CNAP as TDM based interconnection will not support CNAP.
- g. Another major challenge is with regard to handsets as not all handsets are capable of supporting CNAP functionalities. This perpetuates the confusion surrounding the applicability of CNAP and makes it even more difficult for the TSPs to implement CNAP.
- h. Another major detrimental effect of implementation of CNAP feature (through all four Models mentioned in the paper) is that it will require changes in call flow thereby resulting in longer call setup time, which would make customers unhappy and highly dissatisfied with the service provided.
- i. Some of the Technical concerns are listed below:
 - i. Implementation of CNAP over 2G and 3G networks is full of uncertainty.
 - ii. All models in the paper involve substantial latency and cost.
 - iii. Dependency on handset specifications, its manufacturer as well as operating software and user interface providers.
 - iv. Huge development required in both Network and IT systems and processes.
 - v. Humongous subscriber database and incremental changes, maintaining, integrating and updating the database in between TSPs on any frequency, would be a huge challenge.
 - vi. CLI spoofing through calls originating from international locations.
 - vii. Dependency on the implementation of Voice solution under TCCCP Regulation.
- j. Privacy concerns in terms of subscriber database and individual subscriber: Subscriber data is a confidential information and there would be segment of consumers who may not want their names to be shared. In case any database solution involving third party is implemented, then there would be chances of data leakage due to availability of data with foreign OS / handset manufacturers / application providers.
- k. Existing Mobile apps already fulfil the objective of knowing the name of the caller, to make an informed decision about accepting or rejecting the call.
- l. The need to introduce CNAP has to be looked at holistically, with detailed examination of intricate areas related to technical, privacy and other issues, cost-benefit analysis, alternate way to meet the objective and existing regulatory norms for achieving the objective.
- m. Considering all such concerns, we submit that implementation of **CNAP should NOT be mandatory and should be optional for the TSPs. Implementation of CNAP**



should be left to TSPs and they may consider implementing the same keeping the market dynamics / business case in mind.

Q.3. 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.

COAI Response:

- a. Implementation of CNAP should be optional for the TSPs.

Q.4. 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.

COAI Response:

- a. Implementation of CNAP should be optional for the TSPs. In case a TSP opts to implement CNAP, the name identity information may be captured from the CAFs since the same has been verified through a stringent process issued by DoT and adopted by the TSPs where the supporting ID and address proofs have been provided by the consumers for activation of their mobile number.
- b. Hence yes, the name provided in CAF should be used for CNAP purpose since the effectiveness of CNAP can only be ensured within the Telco ecosystem as TSPs have the KYC based customer information. Hence only a Telco owned, operated and neutral KYC'ed solution will benefit consumers and legitimate business entities, will generate confidence, and trust, and make CNAP effective.

Q.5. 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.**

COAI Response:

- a. Given the current TDM based interconnection between TSPs, it will not be possible to adopt model 1, as the same does not support CNAP. This appears to be a significant obstacle for the industry in implementing CNAP.
- b. Moreover, since each of the above model for implementation of CNAP involves dipping in the CNAP database, the same will lead to an increase in Call Set Up Time. Thus, each model will lead to significant cost and latency.

Q.6. What measures should be taken to ensure delivery of CNAP to the called party without a considerable increase in the call set up time?

COAI Response:

- a. We believe it will be a very theoretical assessment unless the requirement of CNAP, the Model and network/handset capabilities are assessed fully. Nevertheless, in all the models proposed in the TRAI CP, the concern around call set up time issues will be there, which may cause serious QoS concerns.
- b. TRAI will need to review and relax the QoS - CSSR parameters if CNAP is implemented.



Q.7. 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.

COAI Response:

- a. No, the existing telecom networks do not support CNAP functionality fully and significant development is required for implementation.
- b. Latest technologies like IMS and VOLTE support CNAP. However, legacy nodes in 2G and 3G network, it would not be fully supported. Fixed line networks would also pose serious challenge to CNAP implementation as the end user landline devices and EPABX may not support CNAP.
- c. Further, the issues will be faced at interconnection level as there are no available standards to pass the CNAP related information over TDM based interconnection between TSPs.
- d. **Circuit Switch Network:** The Circuit Switch (2G) is not equipped for handling CNAP transit as this functionality is not available in CS network node.
- e. **VoLTE / IMS Network-** Though, SIP header supports this facility for calls within IMS network, however, the CNAP functionality will have to be enabled in all core nodes (HLR; HSS; MSC/VLR; GMSC; SBC; TAS) along with definition of service profile for customers in HSS.

Q.8. 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?

COAI Response:

- a. We understand that CNAP being a 3GPP feature, most of the recent smart phones may be supporting the CNAP feature but may require software updates to enable it. However, the complete details of the mobile and landline handsets supporting this feature should be provided by the respective handset manufacturers. This information is required to be examined in detail before the Authority takes any decision and provides recommendation.



- b. In case there are certain landline and feature phone handsets do not support the CNAP feature, then in that case implementation of CNAP will not meet the desired objective.

Q.9. Whether outgoing calls should be permitted from National Toll-Free numbers? Please elaborate your response.

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Q.10. 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.

COAI Response:

Members to respond individually.

Q.11. Whether CNAP service should be implemented for 140-level numbers allocated to registered telemarketers?

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Q.12. 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.

COAI response:

Members to respond individually.

Q.13. 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.

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Q.14. In case the response to the Q13 is in the affirmative, what rules should govern the implementation of such a facility?

COAI Response:



Members to respond individually.

Q.15. 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.

COAI Response:

- a. Provision of CLI has been mandated in various telecommunication service licenses/ authorizations. Since the license already prescribes passing on the CLI end to end without any modification, we do not see any need to make any further amendment in this regard. More than a licensing condition, this is driven by market needs, network, and handset capabilities.
- b. However, if CNAP is introduced, suitable exemptions have to be carved out for QoS performance thresholds as regulated by the Authority. Suitable provisions will also have to be mentioned in the draft Digital Protection Bill, draft Telecom Bill, etc. to ensure the stakeholders like handset manufacturers and OS providers do not store this information and, do not give access of this information to mobile apps.
- c. For the time being, it is suggested that amendment in license should not be done for mandating CNAP unless all the issues outlined are addressed.

Q.16. Whether there are any other issues/ suggestions relevant to the subject? If yes, the same may be furnished with proper justification.

COAI Response:

- a. **Privacy** - Under CNAP, there may be genuine cases wherein some users are not keen to share their name. Any misalignment between privacy requirement and CNAP mandate will make it difficult for TSPs to provide customers with a consistent user experience. It may also cause legal uncertainty for TSPs, which can deter investment and innovation. Hence CNAP framework must address such concerns.
- b. **Charging of supplementary service** - In case CNAP is implemented, the same being a supplementary service, and given techno-commercial and practical challenges highlighted in implementing it, the option of charging the customer for CNAP should be left to the TSPs who will have to make investments etc..