

**The Unsolicited Commercial Communications (UCC) Code of Practice  
for Detection of Voice and SMS Spam (“CoP –Detect”)**

Airtel CoP Version 1.0

This COP is under revision.

## A. Foreword:

- I. The Telecom Regulatory Authority of India (TRAI) has issued “The Telecom Commercial Communications Customer Preference Regulations, 2018, dated 19.07.2018 “TCCCPR-2018”
- II. In terms of Clause 5, TRAI has obligated upon the Access Providers to develop and maintain an ecosystem which inter-alia includes detection, identification and action against sender(s) of Commercial Communication who are not registered.
- III. As per Clause 8, TRAI has also mandated every Access Provider to undertake and develop Code(s) of Practice for Unsolicited Commercial Communications Detection (CoP-UCC\_Detect) as per Schedule-IV; before allowing any commercial communication through its network(s).
- IV. This CoP is the outcome of mandate given in TCCCPR-2018 and has evolved with the joint initiative and concurrence of all the Access Providers.
- V. The CoP will take effect as per the provisions mentioned under the Section Effective date of this CoP document.
- VI. It is to be clearly understood by all stakeholders that any modification to this CoP would be well within the right of TSP, with no liability of any financial claim or damages or any other adverse action, subject to suitable information of such changes being provided to concerned stakeholders.

## **B. Sections:**

- I. Effective Date
- II. Scope & Applicability
- III. Data Availability for Analysis
- IV. Proposed Detection Methods
- V. Definitions
- VI. Version History

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## Section I. Effective Date

1. Being a huge change in the entire chain of ecosystem (i.e. system, business processes and functions to be performed by associated parties), there is a need for seeking consensus of the TRAI on first version of this CoP, before solutioning the architecture, its development and deployment.
2. As per Regulation, TRAI can give inputs to the CoP post its submission. This CoP being first of its kind, it is deemed appropriate to await for TRAI's inputs before further steps are taken towards its implementation. Therefore, this CoP will be effective after 15 days from the date of submission to TRAI ("CoP Effective Date"). In case of any observations from TRAI within such 15 days, this CoP will be effective once such observations are addressed by TSP and agreed with TRAI.
3. The solutioning of architecture, processes, its development and deployment activities will start after finalization of CoP as per point no. 2 above.
4. The estimated timelines for point no 3 mentioned above is at least 6 months post CoP Effective Date, though it would be subject to Vendor finalization, Solutioning & actual requirements emanating from finalized CoP and hence subject to review subsequently.
5. The effectiveness of new ecosystem and processes would depend on its concurrent deployment by all TSPs on a common date. In case, any TSP continues to work on earlier ecosystem and processes, it would give unfair advantage to the said TSP while disincentivizing the other TSP(s) who would develop the new ecosystem and processes earlier.
6. From the implementation date of the TCCCP Regulations, in case any Originating Access provider (OAP) is not ready with the systems & processes and has not published its CoPs (prepared under TRAI's TCCCP Regulation, 2018), the Terminating Access provider (TAP) may block commercial communication to terminate on its network from such OAP, provided that the TAP shall not restrict any commercial communication from OAP for reasons owing to its own systems & processes not being ready in accordance with the TCCCP Regulations 2018.

## Section II. Scope & Applicability

1. This CoP applies to all Access Providers and seeks to establish practices and procedures relating to measures and processes to be followed for detection of spam UCC as defined in the TCCCPR-2018, dated 19.07.2018.
2. The CoP intends to establish minimum acceptable practices for Access Providers to follow in relation to:
  - a. actions to be taken to detect senders sending UCC in bulk against the Regulation to extract information relevant to detect and minimize Spam;
  - b. technical initiatives essential to the process of reducing Spam
  - c. Build intelligence in system basis the behavior analysis.
3. If there is a conflict between the requirements of this CoP and any requirements imposed on Access Providers by statute, regulation or legally binding or code of practice, the Service Provider will not be in breach of this CoP by complying with the requirements of the statute, regulation or code of practice.
4. The CoP only applies to all commercial communication sent either by Voice and SMS that falls within the definition of TCCCP Regulation, 2018, via the telecom network of Access Providers.

### **Section III: Data Availability for Analysis:**

1. All complaints data received by an access providers should be preserved and be available for analysis to initially build and subsequently enhance intelligence measures.
2. Data of reports (Complaints made by customer after 3 days from the date of receipt of UCC.
3. Signatures created in the Antispam tool and those shared between TSPs from their respective Antispam tools.
4. Data from Honeypot solution
5. Inputs from any other network element(s)

## Section IV: Proposed Detection Methods

### 1. Auto-Dialer:

#### i. TSP to examine

- a. Ratio of Silent Calls to total attempted calls (i.e. matured calls) for a registered entity exceeding 3% over a period of 24 hour by an entity using Auto Dialer for Commercial Communications Calls;
- b. Ratio of Silent calls to total attempted calls (i.e., matured calls) for a registered entity exceeding 1% over a period of 24 hours by an entity using Auto Dialer for Commercial Communications Calls;

#### ii. For meeting above, TSP should:

- a. If a Sender intends to use Auto-Dialer to make commercial communication, it shall notify in writing to the originating access provider, before usage.
- b. Notify entities to whom voice resources for telemarketing have been allocated that 'No Sender registered for making commercial communication shall initiate calls with an Auto Dialer that may result in silent or abandoned calls'.
- c. Undertake that use of Auto-Dialer for making commercial communication should not result in silent or abandoned calls exceeding the limit specified in this CoP. In case of failure to meet the limits, the concerned sender shall be liable for any consequences arising from the TCCCPR, 2018.

#### iii. In case any instance of violation is brought to the notice of originating TSP, then following action to be taken by the said TSP:

- a. If any Sender/Entity is found to be using Auto-Dialer resulting into Silent or Abandoned calls, without informing the TSP in advance, TSP should issue warning notice to the said Sender/Entity for first instance. In case of subsequent repeat instance, the TSP should withdraw the telecom resources from the said Sender/Entity.
- b. If there are more than 10 customer complaints w.r.t. receipt of call from Auto-Dialer from a MSISDN allocated to a registered Sender/Entity (who has not informed the TSP about usage of Auto-Dialer), originating TSP should send warning notice to the said Sender/Entity and seek compliance of the Points as mentioned under Para ii of this section.

- c. The complaint received from a same customer number but against the different Sender ID's or number of such Sender/Entity; the same shall be treated as distinct complaints.

## **2. Signature solutions (pattern detection) and enhancements:**

- a. All Access Providers to identify Signatures, keywords and phrases and ensure that no SMS, having similar signature, from any source or number originating more than a specific count of SMS per hour (threshold to be configured), is delivered through its network. This will only be applicable in case of P2P SMS except where specific exemption has been provided by the TSP on case to case basis.

*For the avoidance of doubt, Signature means contents of commercial communications having same or similar characters or strings or variants thereof, but does not include subscriber related information.*

### **b) Keywords filtering technology**

Deployment of keywords filtering mechanism to identify keywords matching on spam SMS content. For instance, keywords with the subject including "free", "hot selling etc may exist in spam SMS. To identify, spam SMS senders trying to trick or escape the filtration system by misspelling some words or adopting variant words, and homophonic words, the words filter should be upgraded frequently to add keywords alteration.

- b. All Signatures detected from the DL-complaints/reports to be captured periodically after due diligence and applying a threshold decided by TSP from time to time.
- c. All signatures or new patterns detected or learned by one Access Provider to be shared amongst the Access Providers on regular basis through DLT system or as per the agreed mode. The list/database maintaining the signatures are continuously updated.
- d. Improve Signature Solutions on an ongoing basis for detection and upgradation.

## **3. Deploying honeypot(s) and using information collected by it:**

- a. Honeypot would be a mechanism which would have virtual numbers configured in the system, with capability of receiving voice calls and SMS. Such system to record voice and SMS received by it, calling number, date, time, duration etc. and generate reports.
- b. For deploying Honeypots, TSPs to identify 5 MSISDN from any series (for each LSA) which are not recycled.



- c. The output of honeypots i.e. CDR analysis and content recorded to be used for investigation and establishment of complaints on best effort basis.
- d. The details of Honeypot solution would be available once IT system and solution is finalized by TSPs. If the solution being implemented by TSPs has configurations contrary to above, then it should inform the TRAI.

#### **4. Information from other Network/IT elements:**

- a. Using of information like IMEI check (usage of more than a specified number of SIMs through a single IMEI in a given period), Age on network, for detection of UCC or for utilizing the same during complaint resolution, to be examined and internal guidelines are formulated and evolved from time to time.
- b. Usage Pattern Analysis of reported number based on either of the combinations of the following parameters:
  - Incoming and Outgoing traffic ratio,
  - Unique B- Number Diversity,
  - Unique LAC Count
  - Unique Hour Calling
  - Device Observation

These parameters may be changed from time to time

- c. Dictionary attacks: Entity-Scrubber to ensure identification of Dictionary attacks/telephone number harvesting software on a best effort basis, where the Sender/Entity/Telemarketer is originating SMS/calls for termination on MSISDNs in series or particular pattern. This can be done on a best effort basis only. Originating numbers/headers thus identified should be used, while investigation of complaints.
- d. In case instances of UCC/promotional calls/SMSs are observed by terminating TSP, originated by unregistered Telemarketers (i.e. using normal 10 digit MSISDN) of same TSP or any other TSP, the terminating TSP may temporarily block calls/SMSs from such unregistered telemarketers from terminating on its subscribers. Such numbers to be put on DLT system, so that it could be useful to all TSPs (particularly originating TSP) while investigating complaints and taking action against the same.

## **Section V. Definitions**

In this Code of Practice, unless the context otherwise, the Definition of various terms used under different clauses of the document will be according to the Definitions given under Regulation 2 of the Telecom Commercial Communications Customer Preference Regulations, 2018.

## Section VI. Version History

The space below is provided to keep a track and record details of Amendments of this Document

<b>S.no</b>	<b>Date</b>	<b>Details</b>	<b>Remarks</b>
1.	08.11.2018	CoP Detect-Version 1.0	

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