

Another Push to Curb UCC: TRAI Mandates AI/ML-Based Detection of UCC and Inter-Operator Intelligence Sharing

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On 27 February 2026, the Telecom Regulatory Authority of India (TRAI) released a direction regarding institutionalisation of artificial intelligence (AI) / machine learning (ML) intelligence for detection of unsolicited commercial communication (UCC) and inter-operator sharing for regulatory action against UCC 'senders' (Direction). The Direction builds upon a series of regulatory oversight initiatives undertaken to address UCC.

The Direction requires all Access Service Providers (ASPs) to share real-time AI-flagged spam intelligence and escalate enforcement shifting India's anti-UCC regime from complaint-driven to proactive triage.

Regulatory Context

The Telecom Commercial Communications Customer Preference Regulations, 2018 (TCCCPR) requires ASPs to establish and operate systems to detect bulk commercial communications originating from Unregistered Telemarketers (UTM). These systems must identify suspicious senders based on traffic signatures and share insights with other operators through a Distributed Ledger Technology (DLT) platform. TRAI noted that approximately 85 percent of all UCC complaints on record are directed at UTMs. Further, while ASPs have adopted AI / ML-based detection systems, the use was limited to alert subscribers in near real-time.

However, the intelligence generated by these systems i.e., behavioural signatures, call volume patterns and temporal anomalies were not being converted into action against the originating sender, and hence, alerting a subscriber without back-end enforcement was not creating deterrence. Another key challenge was to identify telemarketers using multiple SIM cards to circumvent the restrictions. In view of these issues, TRAI issued the Directions to create an enforcement system using network wide intelligence to curb spam activities.

Key Requirements under the Direction

The Direction seeks to operationalise AI-generated intelligence for regulatory action through several procedural requirements. ASPs are required to comply with the Direction within 30 days of its issuance i.e., March 2026.

1. ASPs are required to deploy AI / ML-based systems that continuously analyse behavioural traffic indicators such as call volume, velocity, diversity, duration and temporal patterns to identify potential UCC / spam activity.
2. Once the system flags a number as a suspected spam calling line identification (CLI), the terminating ASP must share this information with the originating ASP through the common DLT platform within 2 hours of detection.
3. The originating ASP must notify the flagged sender and verify the sender's Know-Your-Customer (KYC) credentials to determine whether the telecom resources being used are compliant with applicable regulations and are not being misused.

4. If 5 or more numbers associated with the same sender are flagged as suspected UCC / spam within a 10-day period, ASPs are mandated to initiate regulatory action against the sender. Notably, such regulatory action can escalate with each subsequent instance of UCC activity linked to the sender.

Shift from Complaints-triggered Enforcement to AI-driven Enforcement

One of the most notable aspects of the Direction is the enforcement shift towards a proactive enforcement mechanism. Traditionally, the TCCCPR framework relied on consumer complaints to identify UCC / spam. The Direction has changed this governance mechanism to AI-based detection, coordination between ASPs, and KYC-based tracing.

TRAI has emphasised that merely alerting subscribers about suspected spam does not create a meaningful deterrent. Instead, actionable intelligence generated by network-level systems must translate into coordinated regulatory action across telecom networks. This approach effectively transforms the telecom ecosystem into a network-wide intelligence sharing environment while also enhancing the role of the DLT platform, where information generated by one operator can trigger investigation and enforcement across others.

Comments

The Direction represents a continuation of TRAI's evolving regulatory oversight against UCC / spam. Earlier regulatory measures under the TCCCPR focused primarily on registration of telemarketers, template approvals and consent-based communication frameworks.

However, telecom service providers have previously expressed concerns about relying solely on AI-generated insights for enforcement, noting that automated systems may occasionally misclassify legitimate communications as UCC. TRAI has addressed this concern by requiring coordination between originating and terminating ASPs and by linking enforcement to repeated behavioural indicators rather than single detections.

From a regulatory perspective, it also appears that the Direction is a push towards data-driven compliance and oversight in the telecom sector, where ASPs are required to deploy technological solutions as well as institutionalise their outputs within the enforcement process.

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