



# Combating Fraud Global Regulatory Best Practices

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TELECOM  
REGULATORY  
AUTHORITY OF  
INDIA

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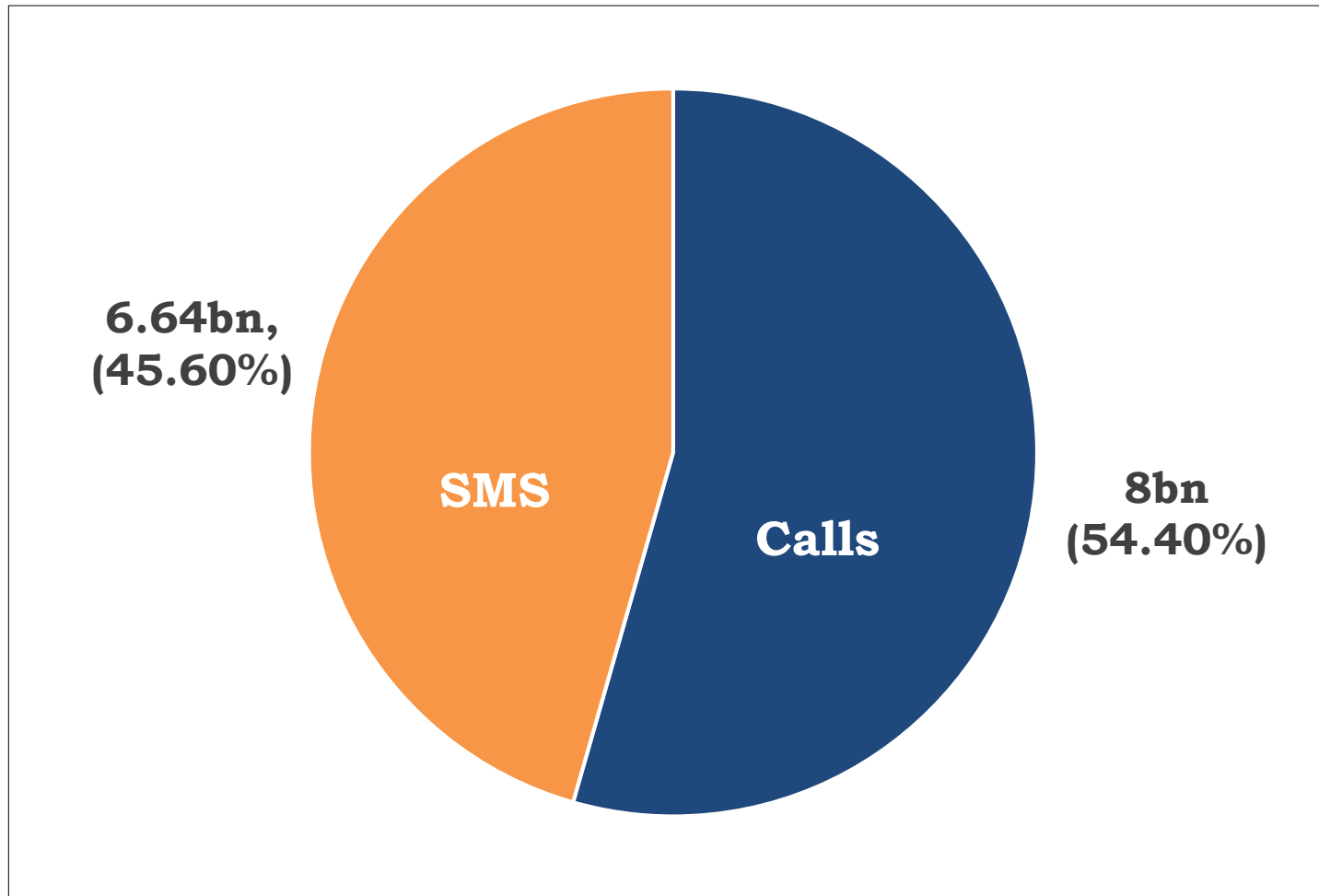


# India's Digital Communications Scale

- 1.3 billion telecom subscribers
- 6.6 billion messages exchanged daily
- 241 billion digital payment transactions annually

**Massive scale requires preventive and automated anti-fraud mechanisms**

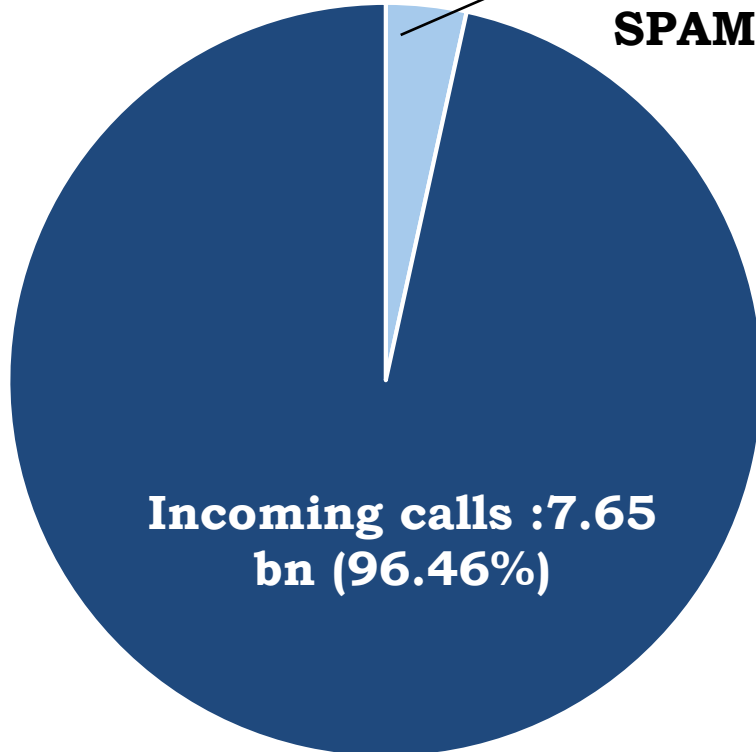
## Calls/ SMS Traffic data Analysis (Per day)



## Calls/ SMS Traffic data Analysis (Per day Average basis)

### % Incoming calls tagged as SPAM

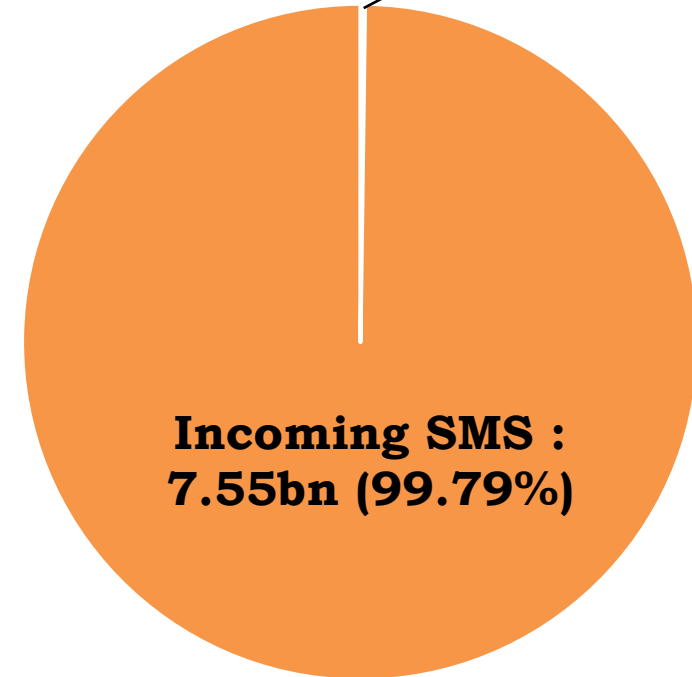
280 mn (3.54%) → Calls tagged as SPAM



**Total incoming calls = 8 bn**

### % of Incoming SMS tagged as SPAM

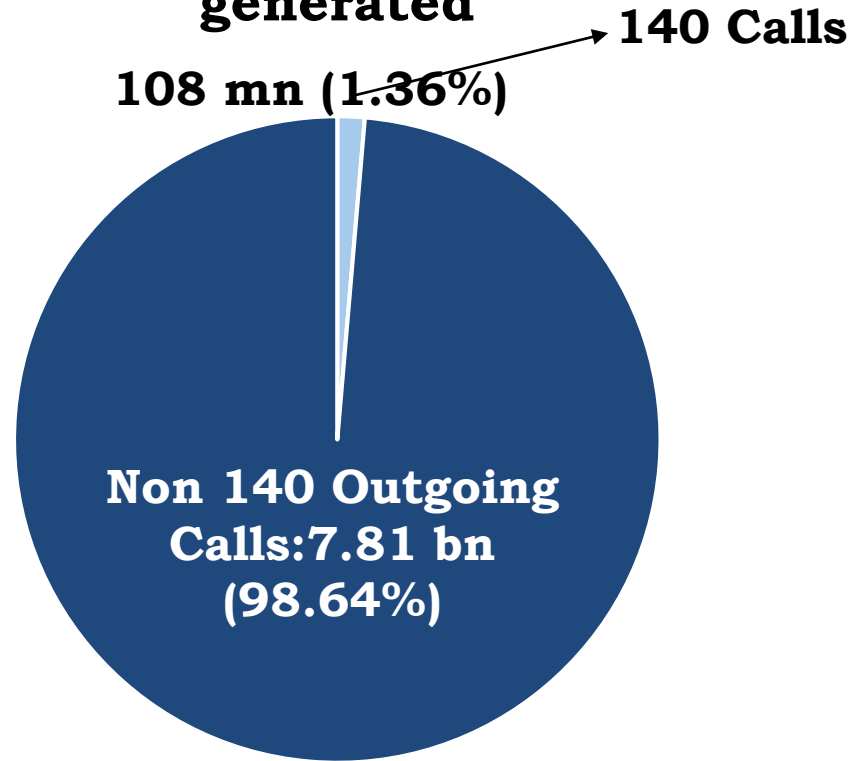
159mn(0.21%) → SMS tagged as SPAM



**Total incoming SMS = 7.55bn**

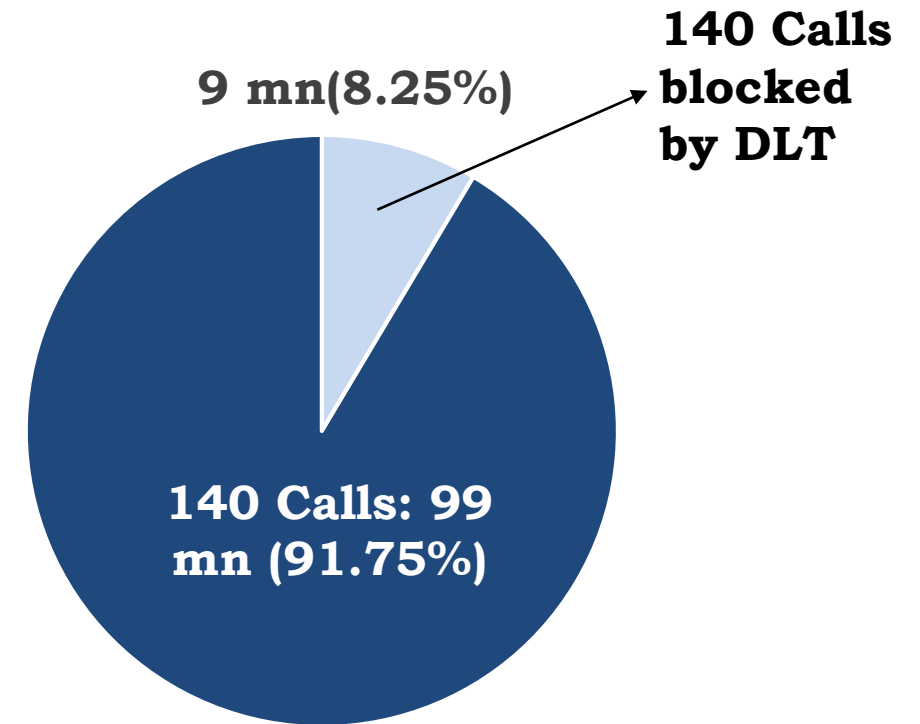
## Calls/ SMS Traffic data Analysis (Per day Average basis)

**Promotional (140 series) out of the total outgoing calls generated**



**Total outgoing calls generated =8 bn**

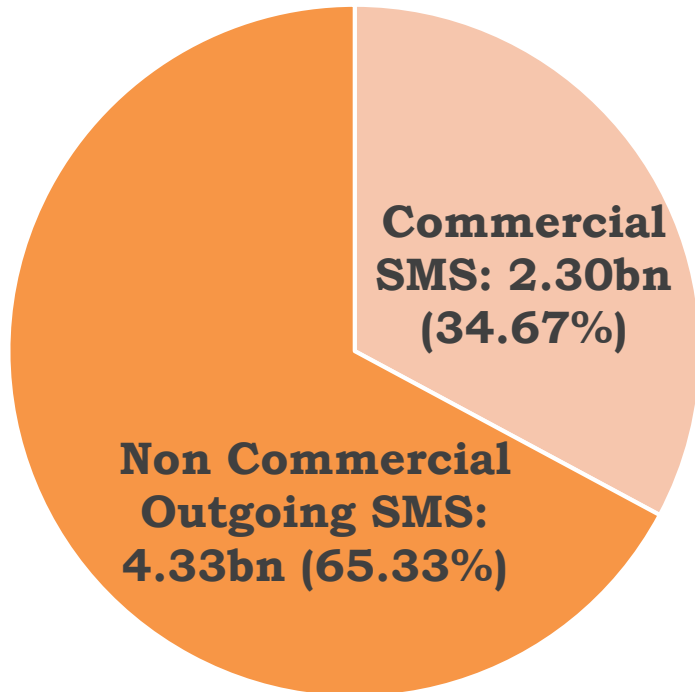
**Promotional (140 series) calls blocked by DLT due to DND**



**Taken as % of total 140 outgoing calls (108 mn)**

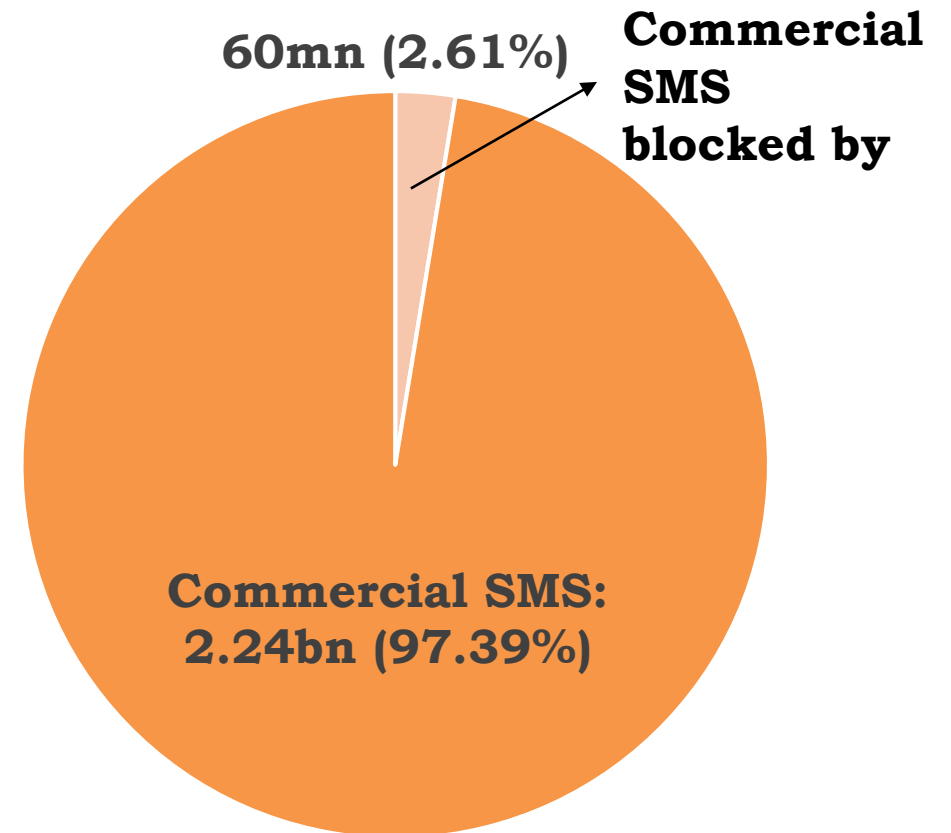
# Calls/ SMS Traffic data Analysis (Per day Average basis)

**Commercial SMS out of the total outgoing SMS generated**



Total Outgoing SMS generated = 6.63bn

**Commercial SMS blocked by DLT due to DND**



Taken as % of total Commercial outgoing SMS (2.30bn)



# TRAI's Regulatory Architecture

- TCCCPR, 2018 based on co-regulatory model
- Blockchain-based DLT platform for registration and traceability
- Registration of PEs, Telemarketers, Headers and Templates
- PE-TM binding for accountability and traceability



# Preventive Trust Framework

- Whitelisting of URLs, APKs, OTT links and callback numbers in SMS
- Preference and Digital Consent framework
- Dedicated numbering series for promotional and transactional calls
- Regular action against unregistered telemarketers and misuse of resources





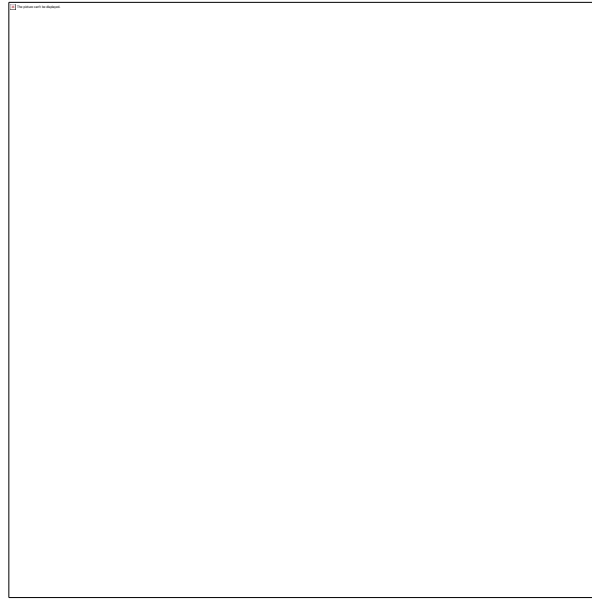
# AI-driven Spam Detection Framework

- AI/ML models analyse billions of calls and SMS in real time
- Detection based on velocity, SIM churn and robocalling signatures etc.
- Real-time spam flagging to consumers



# Outcomes and Strategic Direction

- Outcomes and Strategic Direction
- Shift from reactive complaint handling to preventive spam control
- Large-scale identification and disconnection of spam resources
- Strategic shift from RTM spam control to UTM spam containment
- Stronger coordination with banks, cyber agencies and regulators
- AI-assisted detection and customer alerting for suspected spam
- Transition from entity registration to traceability-based enforcement



# Thank You!!

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