संचार मंत्रालय
MINISTRY OF
COMMUNICATIONS

भारत दूरसंचार
DOT
INDIA TELECOM

SANCHAR SAATHI

Tackling International Spoofed Calls

INDIA's Experience

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Problem Statement – Growing Threat of Spoofed Calls

Threat

Rising cyber-fraud and impersonation via international spoofed calls showing Indian numbers

Spoofed techniques

Caller identity hidden using manipulated CLI (Calling Line Identification)

Use of Spoofed calls

Used for scams like digital arrest, FedEx, and police impersonation

Impact

Impacting citizens' safety and national security

Nature of Spoofing and Evolving Patterns

Early phase

spoofing Indian landline CLIs (+910 to +915, +11 etc.) and spoofing Indian mobile numbers using +91 prefix from abroad

Mid phase

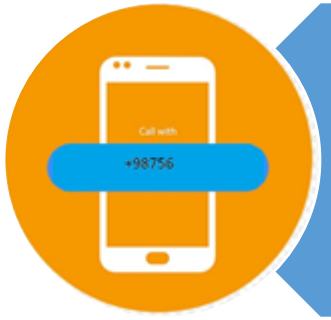
+091, +0091, and satellite codes (Inmarsat)

Newer tactics

Spoofing using country codes which are similar to +91 like +966, +98, +977

DoT's Early Mitigation Measures

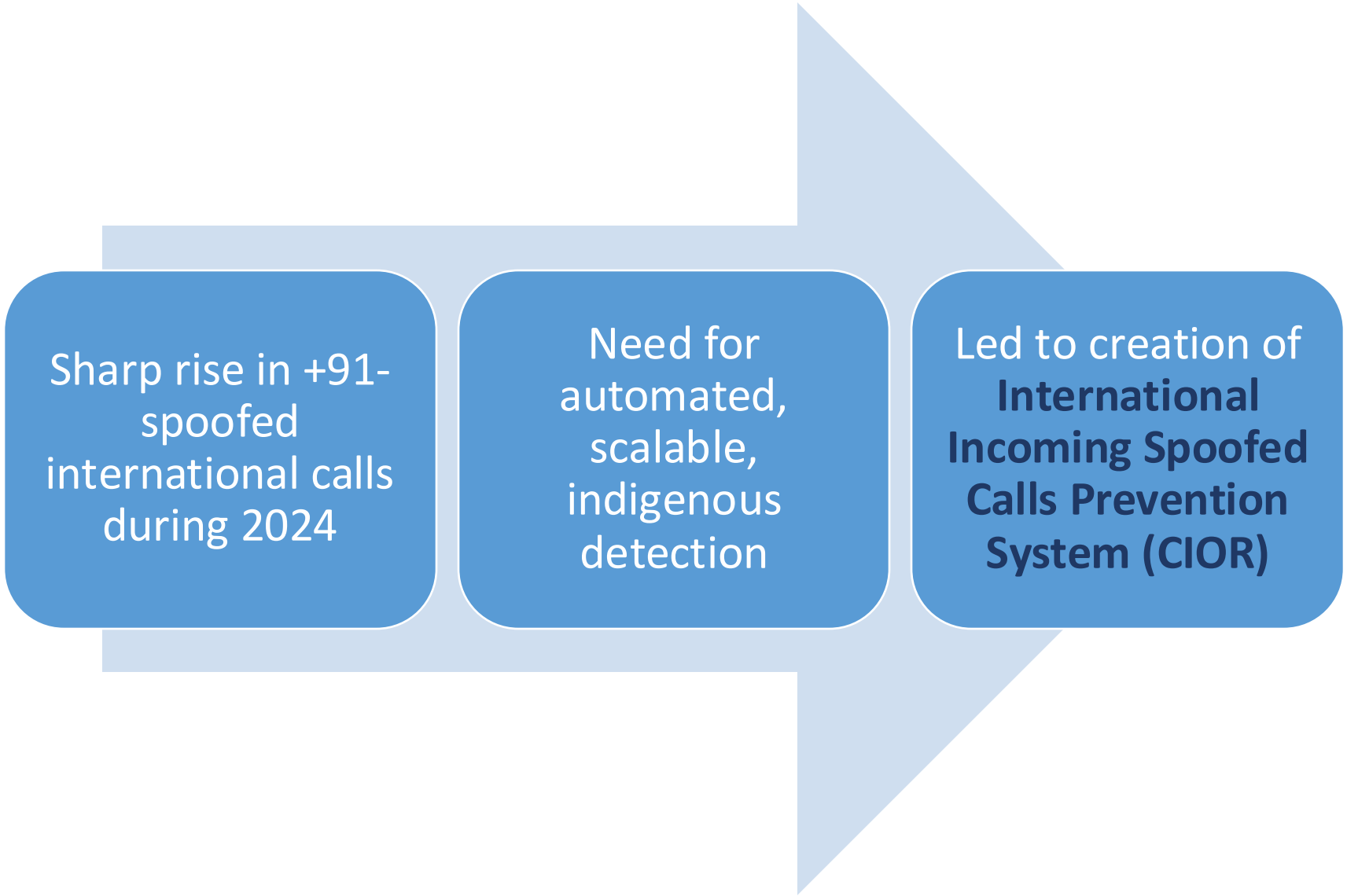
Directed ILDOs to block Indian landline-level CLIs from abroad



Mandated dropping calls with no or malformed CLI

Strengthened international carrier agreements to prevent spoofed traffic

The Trigger for Innovation

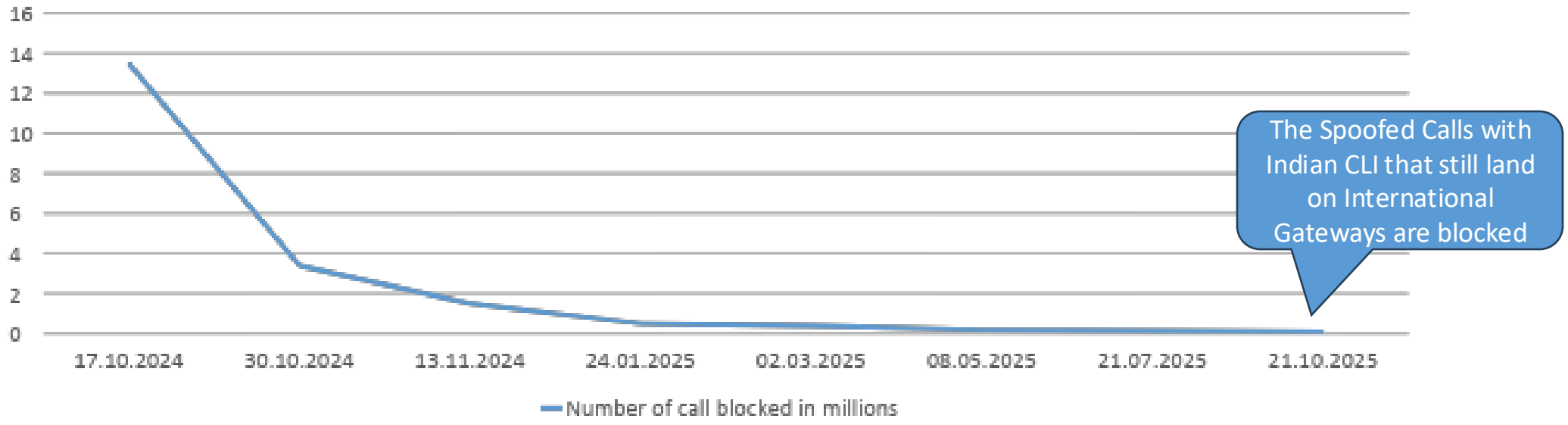


System Design – CIOR function

- Joint initiative: DoT and Telecom Service Providers
- Core functions: Detect, validate, and block spoofed CLIs in real-time
- Techniques: pattern analysis, rule-based filtering, adaptive learning
- Fully indigenous, deployed nationwide

CIOR Deployment and Performance

Commissioning	Impact on launch	Overall Impact	Live 24x7
• Commissioned on 17 October 2024	• Blocked 13.5 million spoofed calls within 24 hours	• Achieved 99% reduction in spoofed calls	• Operational 24×7 across all ILDOs



Post-Launch Challenges and Counter-Measures

Challenges

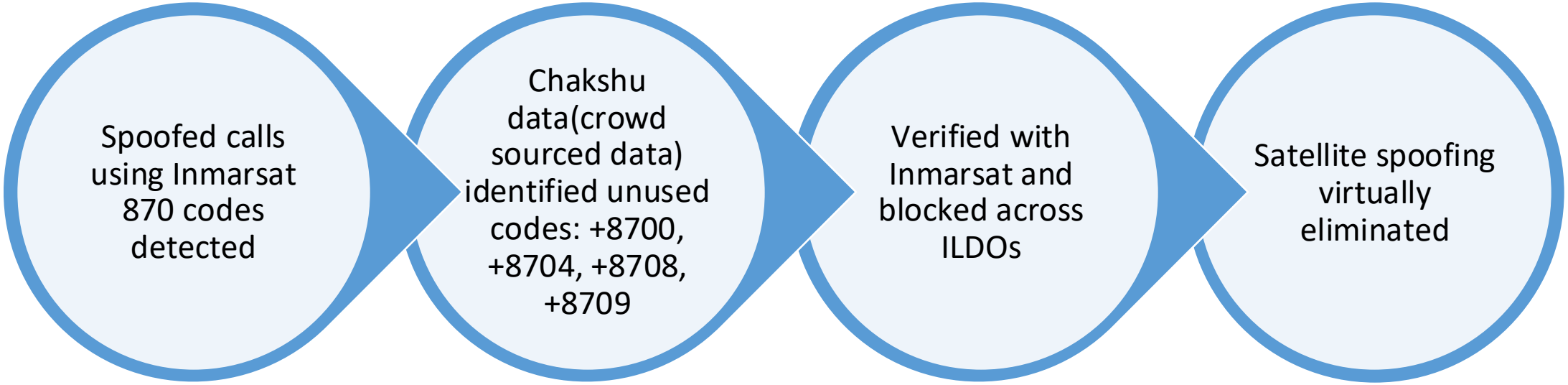
Fraudsters adapted with CLI variants: +091, +0091

Counter-Measures

DoT issued new ILDO directives for blocking rules and implementing National Numbering Plan(NNP)

Calls with <8-digit CLIs blocked to prevent misuse

Satellite Number Spoofing



Pattern Analysis through Crowd Sourced Data (1/2)

Citizen Centric Services

1. CHAKSHU - REPORT SUSPECTED FRAUD & UNSOLICITED COMMERCIAL COMMUNICATION / SPAM
2. BLOCK YOUR LOST / STOLEN MOBILE HANDSET
3. KNOW MOBILE CONNECTIONS IN YOUR NAME
4. KNOW GENUINENESS OF YOUR MOBILE HANDSET
5. REPORT INCOMING INTERNATIONAL CALL WITH INDIAN NUMBER
6. KNOW YOUR WIRELINE INTERNET SERVICE PROVIDER
7. TRUSTED CONTACT DETAILS

Regional languages – Inclusive Approach

210 Million+
Portal Visitors

Real time Dashboard

Sanchar Saathi portal at www.sancharsaathi.gov.in

Mobile App

Quick and Easy Reporting

12 Million+
App Downloads

BHASHINI

23
Languages

Pattern Analysis through Crowd Sourced Data (2/2)

- **Crowd Sourced Data**
- Internal Analysis
- Stakeholders' Inputs
- Miscellaneous

INPUTS

Intelligence, Tools and Data analytics

OUTPUTS

- Detection of suspected telecom resources
- Connections linkages
- Mobile Number Revocation List (MNRL)
- Financial Fraud Risk Indicator (FRI)
- Inputs for Stakeholders

Access

Digital Intelligence Platform

- GSTN, SEBI, NPCI
- Banks, FIs Payment APPs
- Telecom Operators
- MHA, I4C, Central LEAs, State Police
- PoA / PoI issuing agencies
- Social media platforms
- Others Stakeholders

Near Real Time Information Sharing with stakeholders through Digital Intelligence Platform (DIP)

Tackling similar country codes

NNP implementation

- Strict implementation of National Numbering Plan

Blocking unused levels

- Blocking of unused and invalid numbering levels of other countries

Citizen Awareness & Network Hardening

- To enable 'International Call' label for overseas incoming calls
- Over 309 international carriers/aggregators bringing spoofed traffic blocked
- Continuous monitoring via Chakshu analytics
- India’s approach: CIOR + citizen-driven Chakshu reporting
- Combines technical filtering with participatory vigilance

The Ask – Way Forward

ITU may consider developing and maintaining an updated global database of calling number levels

The database may indicate the allocated and unallocated (used and unused) levels for reference by Member States and service providers

Need for implementing trusted CLI in networks, particularly for international calls, as a long-term safeguard

Thank you