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Evolution of a New Framework: Advancing Identity Trust and Transparency in Communications

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Your Presenters Today

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Global Telecom Fraud Is on the Rise $38.95B & SCAMS is a Growing Threat for Financial Institutions

2023 Estimated Global Telecom Fraud Loss:

The major growing fraud threat to Financial Institutions is SCAMS

$38.95 Billion (USD)*

Compared to 2021, Fraud losses increased 12%*

Fraud Loss is 2.5% of 2022 Global Telecom Revenue
$1.56 Trillion (USD) (up from 2.2% in 2021)*

81% of Global financial Institutions identify *Improve Fraud Management & Prevention* as a Critical-High Priority**

25.5% of the world's population has lost money to SCAMS or identity fraud*

*CFCA Fraud Loss Survey Report 2023

**Forrester True Cost of Financial Crime Compliance Study, 2023

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Challenges Plaguing the Ecosystem

- **Enterprises**

  - **Impersonation**

    - Spoofing

    - Phishing – via email

    - Smishing – via SMS

    - Vishing Attacks – via Phone Call

- **Service Providers**

  - **Account Takeover**

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Global Provider of Number Management & Identity Information Services for over 7 billion identities!

Deep Experience Administration Services

Supporting over 1,400+
Service Providers to offer critical connections assets

North American Number Plan Administrator	Toll-Free Number Administrator	Reassigned Numbers Administrator

Global Number Intelligence Solutions

Full suite of Authentication Enablement and Identity Management Solutions serving multiple industries.

Fraud Mitigation, Compliance & Data Integrity	Routing Optimization	Connected Asset Management

A New Telephone Number-Based Trust Framework

- STIR/SHAKEN is a crucial step for call authentication in the network

- Attestation only addresses part of the call authentication challenge

- We need a holistic approach including user-level authentication and validation.

- Call Labeling is not an acceptable end state

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Challenges in Current Attestation Approach

- **Why Current Framework Falls Short**

  - **Network-only attestation**

      Versus

  - **User-level or presentation-level authentication.**

  - Fact: **OSP + TSP does not represent the entire trust establishment picture**

# Zero Trust Fundamentals – Network + User Auth

- **Zero Trust Security Principles**

  - **Every transaction is authenticated – end-to-end**

  - **Unfortunately, impersonation traffic is not distinct from legit enterprise traffic in the attestation model**

  - **Network ID vs User/Presentation ID**
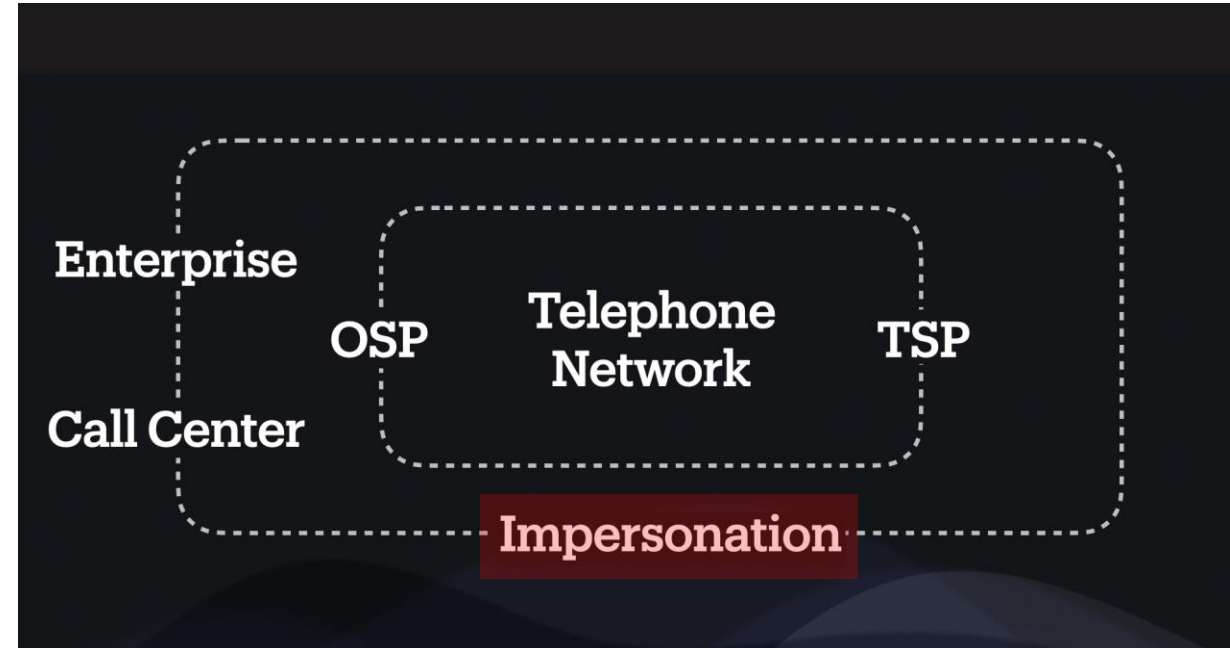
Extending Authentication with Trust and Right to Use

Right to Use (RTU) a telephone number + provable vetting/KYC = strengthening trust

- **Delegate certificate tie to validating RTU of telephone numbers**

- **Transparency for vetting/KYC and enforcing identity uniqueness through ecosystem**

- **Vesper and Certificate Transparency are specific proposed paths forward**
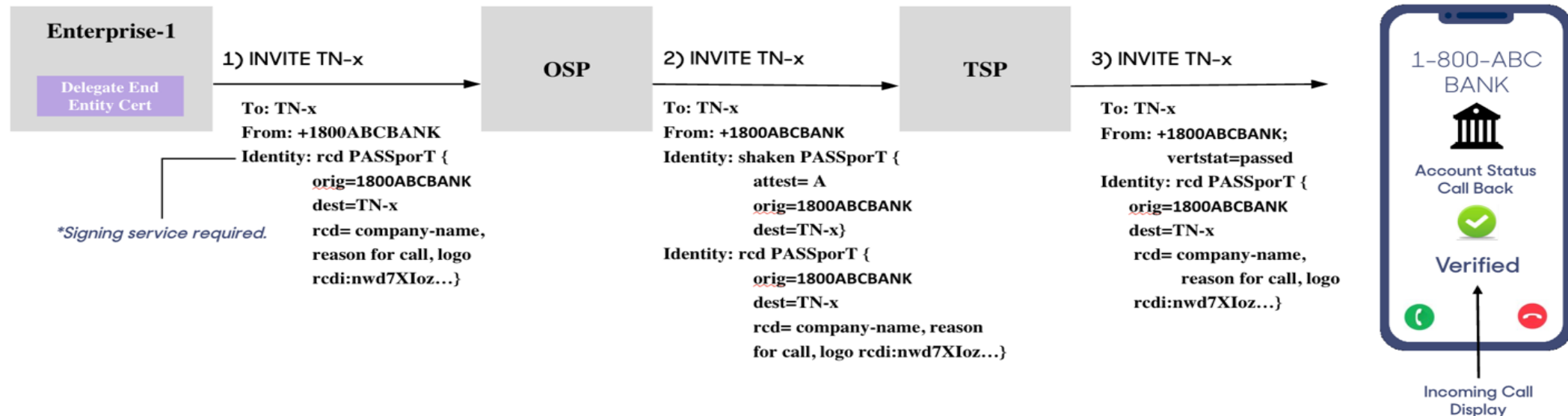
Trust Framework to Address Privacy, Consent, and AI

- **A robust trust framework protects**
  - **Privacy and selective disclosure**
  - **Allows for verifiable but privacy protected consent**
- **Consent to be called (or not called)**
- **Consent to interact with AI systems**
- **This is only beginning user choice in communications – enabled by trust**

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Transparency for Uniqueness and Preventing Impersonation

- **Transparency ensures authenticity and uniqueness.**

- **This prevents spoofing and impersonation, giving confidence in communication channels.**

- **Transparency is an important foundation of trust.**

- **A verifiable notarized declaration enables assurance that every call's origin is legitimate and uniquely tied to the party with the legitimate Right to Use.**

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Building on Trust: The Right Path to Rich Call Data

A robust trust frameworks is required to enable Rich Call Data by ensuring the authenticity of the calling party

To even start thinking about Rich Call Data in the network, we need to solve the fundamental trust problem.

Enterprises and consumers alike need secure systems that protect personal and business identities.

Enable trust to complete calls, but also to prevent others from impersonation.

A Trust Framework with Transparency enables not only Privacy and Consent but also Verifiable Presentation of Rich Call Data

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A Pilot with Toll-Free Numbers

- **Toll-free telephone numbers are a great starting point**

- **Assignment is unique and often more direct.**

- **Commonly already used by enterprises, providing a limited proving ground for the framework**

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Towards a Holistic, Interoperable Standards Solution

- **This isn't just a proprietary solution; it's an interoperable standards framework that invites industry collaboration**

- **Building a competitive, open platform for solving trust and security issues is the only path that will work**

- **This isn't a one-off solution but lays a roadmap for trust**

- **It's a concrete proposal towards an industry-wide, interoperable framework that brings all stakeholders into the conversation.**

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Telecommunications Ecosystem Call To Action

Telecom Companies

Enterprises

Regulatory Bodies

Consumers

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Trust Framework Principles & Key Benefits

IDENTITY TRUST

TRANSPARENCY

PRIVACY of customer data

Verifiable customer CONSENT

PRESENTATION of phone call branding

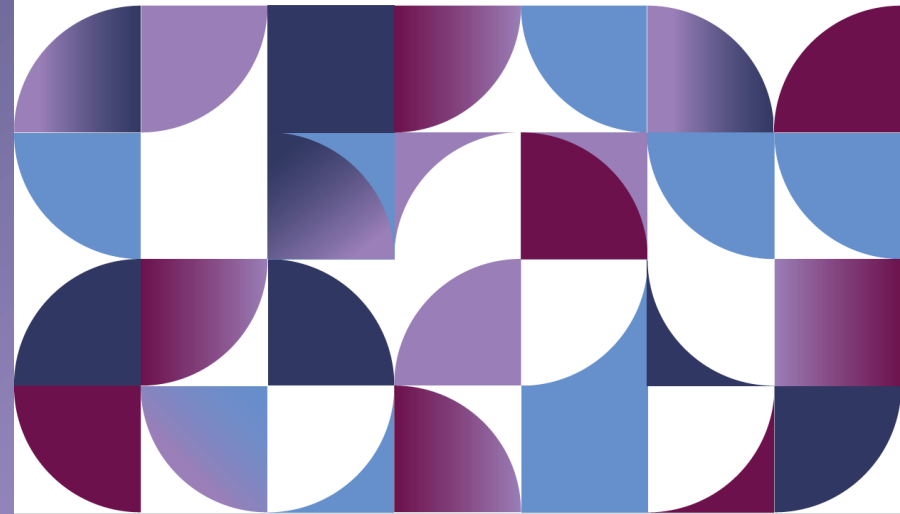SOMOS®

Trust
Framework
White Paper

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The Trust Framework:
Pioneering a New Era of Telephone Identity Verification

WHITEPAPER

www.somos.com/driving-trust-communications

Let's Build
Trusted Communications Together

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