



# STIR/SHAKEN Technical Capability Declaration with ASTPP Solution

**Vendor:** Inextrix Technologies Pvt. Ltd.

**Product:** ASTPP – A Smart Telephony Platform (Softswitch & VoIP Billing System)

**Website:** [www.astppbilling.org](http://www.astppbilling.org)

**Date:** 12th March, 2026

# 1. Vendor Statement

This document serves as an official technical declaration from **Inextrix Technologies Pvt. Ltd.**, the developer and maintainer of **ASTPP – A Smart Telephony Platform**.

ASTPP is a carrier-grade VoIP softswitch (Class4 and Class 5) and billing platform used by telecom operators, wholesale voice providers, contact centers, and communication service providers worldwide. The platform supports SIP-based telephony infrastructure and integrates with various telecommunication networks and third-party systems.

This document confirms the STIR/SHAKEN capabilities supported by the ASTPP platform.

## 2. Overview of STIR/SHAKEN

STIR (Secure Telephone Identity Revisited) and SHAKEN (Secure Handling of Asserted Information using toKENs) are industry-standard frameworks designed to combat caller ID spoofing, robocalls, and fraudulent voice traffic.

These frameworks introduce a trusted caller authentication mechanism in SIP-based voice networks by applying digital signatures to SIP calls. The authentication allows terminating service providers to verify the legitimacy of caller identity and reduce fraudulent or spoofed calls.

The STIR/SHAKEN framework is widely adopted in accordance with regulatory and industry standards such as those introduced by the **Federal Communications Commission (FCC)** and telecommunications regulatory authorities globally.

## 3. ASTPP STIR/SHAKEN Capability

The **ASTPP softswitch platform supports STIR/SHAKEN implementation through a dedicated STIR/SHAKEN solution module** that enables service providers to authenticate, digitally sign, and verify SIP calls within their communication networks.

ASTPP provides the capability to:

- Digitally sign outbound SIP calls using STIR/SHAKEN authentication mechanisms
- Verify incoming SIP calls containing Identity headers
- Support attestation levels including **Full Attestation (A), Partial Attestation (B), and Gateway Attestation (C)**
- Append SIP Identity headers to authenticated calls
- Validate digital signatures using public certificate repositories
- Identify and mitigate caller ID spoofing and robocall traffic
- Provide traceability for suspicious or fraudulent calls

Through this functionality, ASTPP enables service providers to build trusted voice communication networks and reduce fraudulent telephony activities.

## 4. Call Authentication Workflow

The STIR/SHAKEN implementation within ASTPP follows the standard industry call authentication workflow:

1. The calling party initiates a call through the originating service provider's network.
2. The originating provider inspects the caller identity and determines the appropriate attestation level.
3. The call is routed to the terminating service provider.
4. The terminating provider verifies the digital signature using the originating provider's public certificate.
5. Based on the verification result, the call can be marked as **verified, suspicious, or rejected**.

This mechanism ensures secure caller identity validation across SIP-based VoIP networks.

## 5. Key STIR/SHAKEN Features in ASTPP

The STIR/SHAKEN solution integrated with ASTPP includes the following capabilities:

- Caller ID authentication using public/private key infrastructure
- Digital signature generation and verification for SIP calls
- Identity validation for inbound and outbound calls
- Call analytics and monitoring related to authenticated traffic
- Traceability of spoofed or suspicious calls
- Compliance with STIR/SHAKEN regulatory frameworks
- Flexible integration with various VoIP platforms and telephony networks
- Highly scalable architecture supporting large communication networks

## 6. Compliance and Integration

ASTPP's STIR/SHAKEN implementation is designed to align with the industry standards defined by:

- ATIS STIR/SHAKEN framework specifications
- IETF SIP Identity standards (RFC 8224)
- PASSporT token standards (RFC 8588)

The solution can be implemented according to regulatory frameworks such as those mandated by the **FCC in the United States** or equivalent telecommunications regulations in other countries.

ASTPP can be integrated with existing telecom infrastructure, SIP networks, and certification authorities to support full STIR/SHAKEN deployment.

## 7. Deployment and Implementation

Inextrix Technologies provides consultation, deployment, and implementation services to help telecom operators deploy STIR/SHAKEN solutions within their VoIP networks.

The implementation can include:

- STIR/SHAKEN architecture design
- Deployment of authentication and verification services
- Integration with STIR/SHAKEN certificates
- Customization according to country-specific telecom regulations
- Ongoing support and maintenance

## 8. Official Declaration

Inextrix Technologies Pvt. Ltd. hereby confirms that the **ASTPP softswitch platform includes the capability to support STIR/SHAKEN caller ID authentication through its dedicated STIR/SHAKEN solution module.**

When deployed with the appropriate STIR/SHAKEN certificate infrastructure and network configuration, ASTPP can operate within a **STIR/SHAKEN compliant VoIP environment** to authenticate and verify SIP calls in accordance with applicable industry standards.

## 9. Authorized Signatory

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Company: **Inextrix Technologies Pvt. Ltd.**

Signature: *Amit Varma*

Date: 12th March, 2026