

# Voice-Based Auditing in Financial Industry

## Problem Statement

Traditional financial audits primarily focus on structured data and manually logged transactions. However, with the rise of verbal communications in financial operations (e.g., client advisory calls, trade desk decisions), critical instructions and decisions often go undocumented in audit trails. This creates compliance gaps, potential for disputes, and regulatory risk, particularly in environments governed by SEC, FINRA, or MiFID regulations.

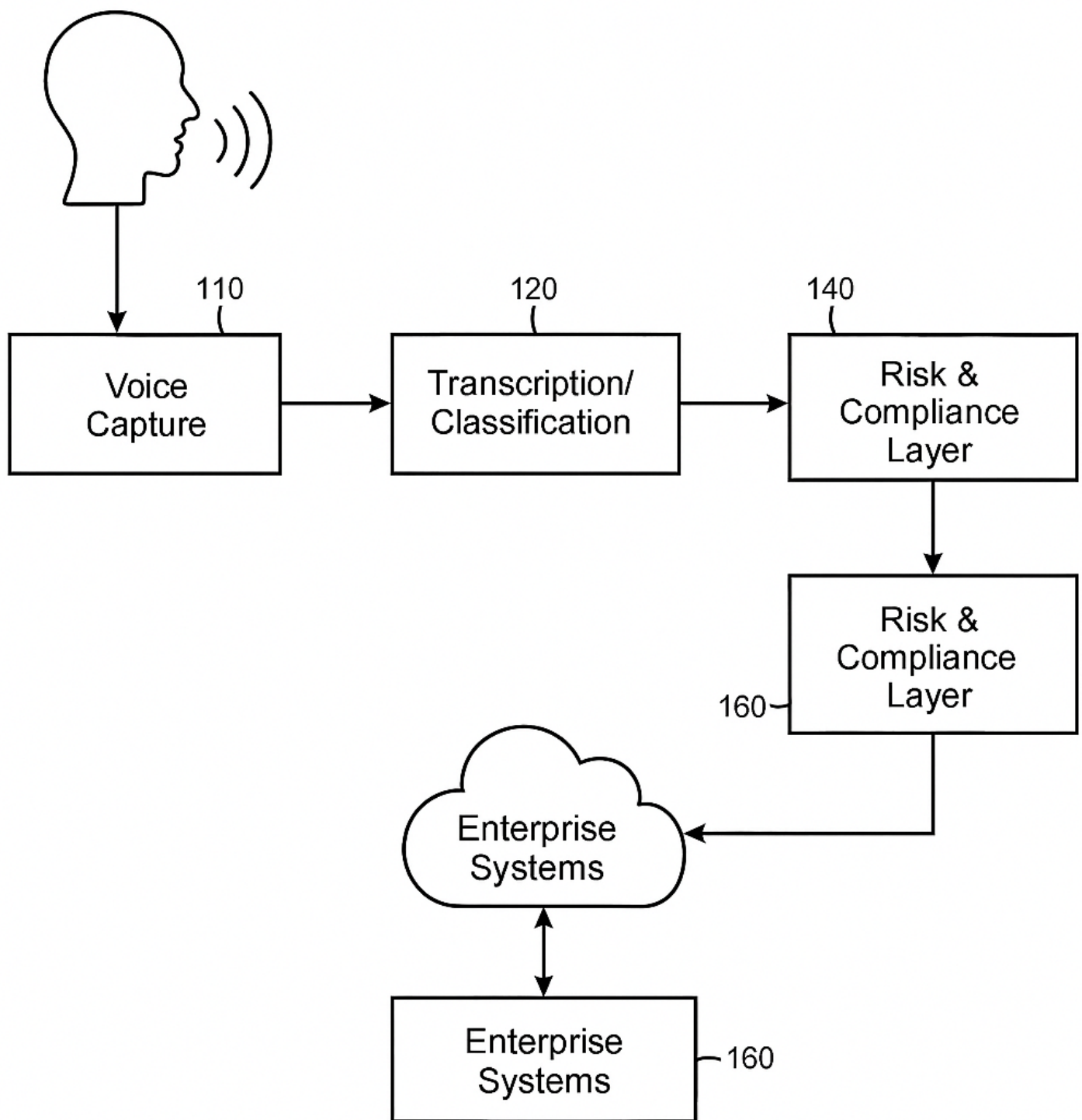
## Technical Solution

The invention proposes a voice-based auditing system that captures spoken communication during financial interactions, transcribes it using a financial-domain speech engine, classifies the content, and integrates it into the enterprise's audit trail. The system supports compliance checks, risk detection, timestamp correlation with system actions, and secure storage for audit verification.

## Core Inventive Features

- Real-time voice capture and transcription tailored to financial terminology.
- NLP-based classification to tag actionable events, disclosures, and approvals.
- Automated correlation between spoken words and system actions (e.g., trades, account changes).
- Risk and compliance layer for anomaly detection and flagging.
- Immutable, regulation-compliant audit trail storage (WORM or blockchain-compatible).
- Auditor dashboard with search, filter, and export capabilities.





**FIG. 1**

VOICE-BASED AUDITING SYSTEM IN FINANCIAL ENVIRONMENTS

*FIG. 1 - Architecture Diagram: Voice-Based Auditing System in Financial Environments*