

# RIXFORENSICA

## Proposal of Services

### Overview

RixForensica, a privately owned, Level 1 BEE Investigations Services Company would like to offer our professional services to the ACFE. Our aim is to provide you with the best Voice Recognition services, fast and efficiently.

### The Objective

- Need #1: provide clear voice recognition that can be used in court
- Need #2: template matching of voice clips

## Background into our systems

### viPal

Speech is a complicated signal produced as a result of several transformations occurring at different levels: semantic, linguistic and acoustic. Differences in these transformations lead to differences in the acoustic properties of signals. The recognisability of a speaker can be affected by the linguistic message and background noise.

Speaker identity is quite often an issue in court cases. viPAL is a text-independent speaker recognition system with a Graphical User interface. It is fast, accurate, and based on existing clients utilizing the technology successfully in call centres to prevent fraud

viPAL has been implemented with success to compare 2 voice clips against each other. Templates are generated from each clip and sent to the backend server to be compared. viPAL applies Azure's Cognitive Services and scores each comparison on the probability that these voice templates match.

Leading scientific Machine Learning algorithms are applied to do the template matching of the voice clips.