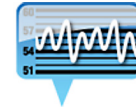


Public Security Solutions for a Safer World

Voice biometrics solutions for public safety.



Nuance Forensics

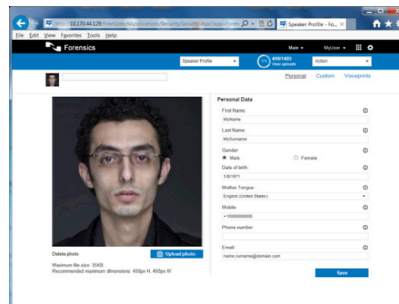
Solution Overview.

Nuance Forensics is a voice biometric software solution designed to provide forensic examiners and investigators with the ability to accurately match an individual's identity with content captured through any type of audio channel.

Architected using innovative voice biometric technologies, Nuance Forensics analyzes an audio file then compares that sample to a comprehensive speaker profile and a robust reference population to statistically assess whether an individual can be associated with that file. Based on Nuance's innovative industry-leading algorithms, this solution provides a complete set of tools to develop reference populations, build comprehensive speaker profiles, construct a library of certified speaker samples, and assess the likelihood that an unknown audio file matches a target speaker profile.

Using advanced statistical measures such as Log Likelihood Ratios and Tippett Plots, Nuance Forensics ensures accuracy of identification and normalizes for audio quality and variability. Multi-language support and pre-defined reference populations segmented by dialect, gender and language expand the software's applicability to assist in a wide range of investigations and prosecutions.

With Nuance Forensics, investigators and prosecutors can now leverage advanced technologies from the global leader in voice biometrics to improve and advance their cases while simultaneously easing the burden on scarce and valuable human resources to manually validate speaker identities.



Key Applications.

- **Forensic Assessments**
Precisely compare suspect voice samples with audio recordings taken from relevant intercepted conversations and mathematically determine likelihood ratios and the residual error margins to support prosecution.
- **Criminal Investigations**
Biometrically associate targets with voices captured via any audio channel, drastically reducing speaker ambiguity, advancing investigative hypotheses and accelerating time to prosecution.

Key benefits.

- **Assist Successful Prosecutions**
Produce compelling and reliable evidence in court by submitting proven forensic and scientific voice biometric identification of alleged criminals and terrorists.
- **Inform Active Investigations**
Quickly confirm identities of speakers in recorded audio files to support investigative theories and accelerate time to an effective prosecution.
- **Better Utilize Scarce Resources**
Streamline association of speaker identities with audio files using advanced voice biometric technologies, freeing up scarce investigative and prosecutorial resources to do what they do best – prevent & prosecute criminal activity.
- **Broaden Identification Capabilities**
Leverage multi-language and dialect support to expand the organization's ability to accurately identify speakers without requiring native speaking capabilities.

– **Counter-terrorism Investigations**

Quickly match targets to captured voice samples, leveraging multi-lingual capabilities to biometrically link individuals and audio recordings without using scarce human resources with native speaking capabilities.

– **Criminal Prosecution**

Support trial strategies with voice biometric evidence and streamline pre-trial work by using technology to assist in the confirmation of speaker identities for voice samples to be used at trial.

Key Features.

– **Hyper-Accurate Speaker Identification**

Accurately and definitively associate speaker identities with recorded audio files, using cutting-edge, state-of-the-art voice biometric technology.

– **Comprehensive Forensic Report Production**

Easily produce a detailed forensic report containing a graphical representation of the Log Likelihood Ratio.

– **Support for Robust Reference Populations**

Reliably estimate Inter-Speaker Variation by defining a representative set of voice samples with common features (gender, language, dialect, etc.) to estimate the probability that a given voice sample belongs to a known speaker, rather than to a random individual. 68 built-in reference populations are provided.

– **Verify Reliability with Observed Tippett Plots**

Measure the strength of voice evidence graphically with a system-generated Tippett Plot graph comparing the log likelihood ratio (LLR) and the residual error in the system. Tippett Plots represent all the certified results of previous comparisons, including matches and mis-matches, and demonstrate how strongly the present LLR supports the prosecution's hypothesis.

– **System Checks Ensure Quality Assessments**

Quickly and accurately check calibration similarity, audio quality, enrollment segment consistency, and reference population consistency to ensure quality forensic analysis.

– **Automated Language & Gender Identification**

Detect gender as well as spoken language leveraging advanced speech technologies and allow for files to be filtered by language as an audio attribute. Support for twenty-two language models including Arabic (multi-dialect), German, Mandarin, Farsi/Dari, Pashto, Russian and more.

– **Advanced & Flexible Architecture**

Secure multi-user web based environment supports role based authorization, multi-site high availability configurations and more.

About Nuance Voice Biometrics.

Nuance is the global leader in voice biometric solutions, with over 30 million enrolled voiceprints in the commercial space alone and numerous security-critical deployments. Nuance has developed unrivaled experience in delivering successful voice biometric solutions that enable military, intelligence and law enforcement agencies to ensure a safe and peaceful future for citizens.

About Nuance Communications, Inc.

Nuance Communications is reinventing the relationship between people and technology. Through its voice and language offerings, the company is creating a more human conversation with the many systems, devices, electronics, apps and services around us. Every day, millions of people and thousands of businesses experience Nuance through intelligent systems that can listen, understand, learn and adapt to your life and your work. For more information, please visit nuance.com.