

Nuance Security Engine (NSE): Fast, easy, audio mining.

Security tools to identify speakers (track, filter and classify) within large audio datasets.

NSE is a powerful engine that assists intelligence, military and law enforcement personnel, analyzes millions of incoming audio files, spotting a list of valuable targets with extremely accurate rates, thus dramatically reducing the number of calls required for further intelligence.

By providing a state-of-the-art set of speech related technologies, NSE can help focus voice biometrics results by identifying language and gender and additionally providing specific information about the content of the audio recordings through transcription.

NSE is also a surveillance tool, designed to spot speakers of interest in real-time audio streams (phone conversations, radio transmissions, TV broadcasting, etc.).

Delivered as a C or JAVA API, NSE enables easy integration into any lawful intelligence voice interception or data and voice mining system. Powered by Deep Neural Networks (DNN) for its algorithm, together with its auto-tuning features and training toolkits, NSE allows to maximize the results and obtain unprecedented accuracy in cross-channel conditions as well as with very short samples.

Key features

High speed and scalability

NSE delivers the scale and speed for a country-wide system, capable of rapidly and accurately processing thousands of hours of audio, transcribing its content and matching it with millions of voiceprints within seconds. The Engine is fully scalable and deployable in a multi-threaded/multi-core environment.

Real-time identification

Streaming based matching NSE uses a real-time approach, so, there is no need to wait until the end of a conversation to start to analyze the audio.

Deep-neural-networks-based voice biometrics

Nuance voice biometric algorithms have been used to protect security-critical applications since 2001. In 2015, Nuance released the industry's first voice biometric algorithms powered by deep neural networks (DNN), a computer learning technology that enables a quantum leap in performance. NSE is embedding the third generation of its DNN-based voice biometric algorithms, setting a new industry benchmark in voice biometric performance.

Key benefits

- **Speed up your analytics.** The information extracted using NSE allows your team to filter and classify large volumes of audio to better prioritize their workload, dramatically reducing the number of calls required for further intelligence processing in mass voice interception systems.
- **Connect the dots quickly.** Speed up investigations by automatically identifying individuals of interest and what they are saying based on who they are, who they are speaking with and what they are talking about.
- **Enable your team everywhere.** Thanks to its Android and iOS versions, NSE allows you to identify individuals on the go in field operations.

Market-leading automatic transcription

NSE leverages the market-leading Nuance Transcription Engine (NTE) providing an unparalleled combination of technologies. It supports over 20 languages and 35 dialects (with additional languages rolled out regularly) and provides up to three different modes, which allows to balance speed, accuracy and hardware requirements.

Clustering

NSE groups audio in clusters based on speaker voices contained in each file. This allows for significant improvements in intelligence gathering: analysts can now quickly associate previously unknown data and find patterns in large sets of information.

Intelligent detectors

NSE can narrow down searches by filtering based on many criteria including gender and language. Language detection can also be

used to route every incoming audio to the relevant language transcriber.

Flexibility

NSE provides a powerful and easy-to-integrate interface that is available in both C and Java. The Engine can be deployed at Server level (Windows/Linux) and in handheld devices (Android/iOS).

Nuance Public Security solutions

Nuance is the global leader in voice biometrics and security solutions for public security with a comprehensive portfolio of products designed to cover all the needs of law enforcement, intelligence and military agencies providing forensic, criminal ID and audio mining capabilities. Nuance products allow full interoperability between organizations and provide more than 15 years of unrivaled experience in delivering successful voice biometrics solutions that enable agencies to build a safer world.



Learn more

For more information about Nuance security products, go to <https://www.nuance.com/omni-channel-customer-engagement/security/public-safety.html>



About Nuance Communications, Inc.

Nuance Enterprise is reinventing the relationship between enterprises and consumers through customer engagement solutions powered by artificial intelligence. We aim to be the market leading provider of intelligent self- and assisted-service solutions delivered to large enterprises around the world. These solutions are differentiated by speech, voice biometrics, virtual assistant, web chat and cognitive technologies; enabling cross-channel customer service for IVR, mobile and web, Inbound and Outbound; and magnified by the design and development skill of a global professional services team. We serve Fortune 2500 companies across the globe with a mix of direct and channel partner selling models.