

# Voice biometrics for authentication and fraud prevention.

Make life easy for customers and tough for fraudsters with Nuance Security Suite v10.

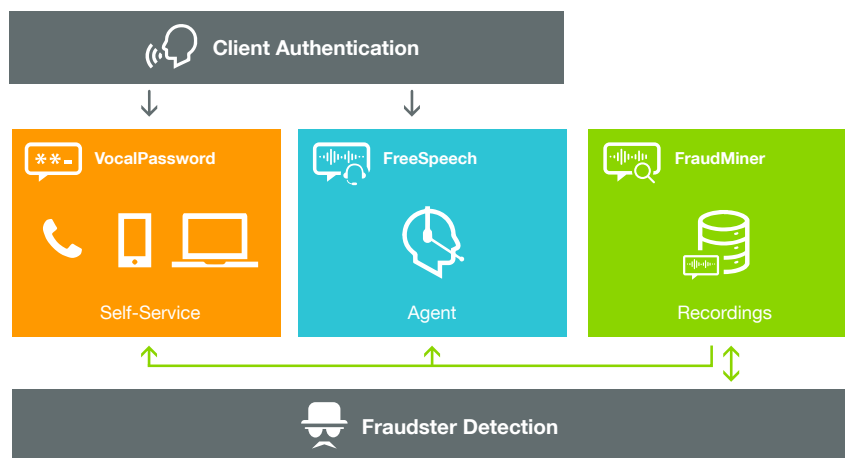


## Voice biometrics for authentication and fraud prevention

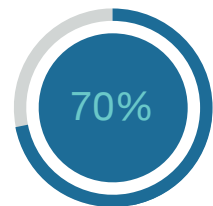
Voice biometrics enables easy and secure authentication by analyzing a person's unique voice. Increasing customer dissatisfaction with [PINs, passwords and security questions](#) and the costly process of manual authentication by agents make a persuasive business case for voice biometrics in any customer-facing organization needing to authenticate customers, operate cost-effectively and improve customer satisfaction. In addition, voice biometrics is a proven way to slash fraud-related costs by more than 59% in a contact center. The choice for voice biometrics for authentication and fraud prevention is obvious.

Nuance [VocalPassword](#), [FreeSpeech](#) and [FraudMiner](#) are leading voice biometric products in both innovation and implementation, with more than 55 million registered voiceprints at top enterprises such as the Australian Taxation Office, Barclays Wealth, Banco Santander Mexico, ING Netherlands, Manulife, Turkcell Global Bilgi and many more. In fact, this makes up approximately [80% of the global voice biometrics market](#).

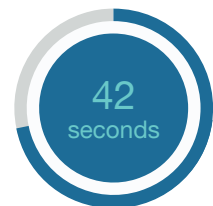
Nuance has combined our voice biometric solutions (VocalPassword, FreeSpeech and FraudMiner) into a new platform: the Nuance Security Suite. The unified platform provides authentication and fraud detection across interactive voice recognition (IVR) systems, contact centers, mobile apps and the Web. Available on a hosted or on-premises basis, the Nuance Security Suite delivers the kind of fast, easy customer authentication experience that helps differentiate your brand. As a unified platform, Nuance Security Suite provides a centralized system for management of voiceprints and blacklists (list of known fraudsters) as well as the unified reporting, system security, and administration to help reduce operational costs.



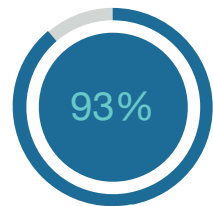
annual savings at  
**Banco Santander Mexico**



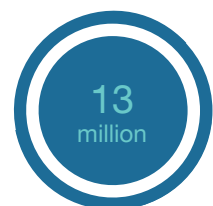
of customer base  
enrolled within 6  
months of launch at  
**TD Waterhouse**



decrease in agent  
handle time at  
**Australian Taxation Office**



of clients rate voice  
biometric authentication  
at 9 out of 10 for  
speed, ease-of-use  
and security at  
**Barclays**



enrolled voiceprints at  
**Turkcell Global Bilgi**

**Key benefits**

- Enables a **brand differentiating customer experience** with fast and accurate authentication across multiple channels (self-service and agent-assisted) and devices
- Provides **robust security** and proactive fraud prevention as proven by customer deployments worldwide
- Delivers a **proven ROI** through the reduction of operational costs by increasing self-service and reducing average handle time by agents

**Industry-leading features**

- **Unified platform.** From a single console, your staff now can manage voiceprints, fraudster watchlists, reports, system security and more across all channels, reducing operational costs.
- **Super Background Model<sup>1</sup> (SBGM).** Introducing a background model leveraging over 50,000 audio files from Nuance's extensive deployment base, SBGM delivers superior authentication and fraud detection accuracy with a short passphrase – "My voice is my password" – and eliminates the need for custom audio collections.
- **Deep Neural Network Algorithms.<sup>2</sup>** Delivers 20%-30% improvement in accuracy over the previous generations of voice biometric algorithms. This improvement also is an example of how Nuance is continually investing in voice biometrics to raise the bar on performance.
- **Risk-Based Tuning Decision.** Capability of the system to make verification decisions based on the specific behavior of each voiceprint. This technique improves accuracy of true user authentication.
- **Smart Adaptation.** Enables automated adaptation of the callers' voiceprints as they use the system. The system learns by analyzing legitimate users failed authentication attempts (due to noise variations, different devices, natural aging process) and enhances existing voiceprints, resulting in improved authentication accuracy.
- **Playback and synthetic speech attacks detection.** Nuance's algorithms run as part of the authentication process to detect the most common security threats for voice biometric systems - audio recordings and synthetic speech attacks - to enhance security.

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**What enterprises using voice biometrics are saying...**

"Voice biometrics allows our customer to get service in the most natural and intuitive way, through their voice. The end result is a better and more effortless experience for our customers."

**Bob Rivers, President and Chief Operating Office, Eastern Bank**

"A big positive result that we've had a 90% reduction in complaints regarding our security service since we've implemented voice biometrics."

**Paul Scales, Senior Client Service Manager, Barclays Wealth**

"With Nuance's voice biometrics, we have introduced a secure, fast, and easy way to verify a customer's identity, providing a greatly improved experience for our customers and our staff. The streamlined authentication has allowed the ATO to quickly boost call completion rates while improving security."

**John Dardo, Acting Deputy Commissioner, Australian Taxation Office**

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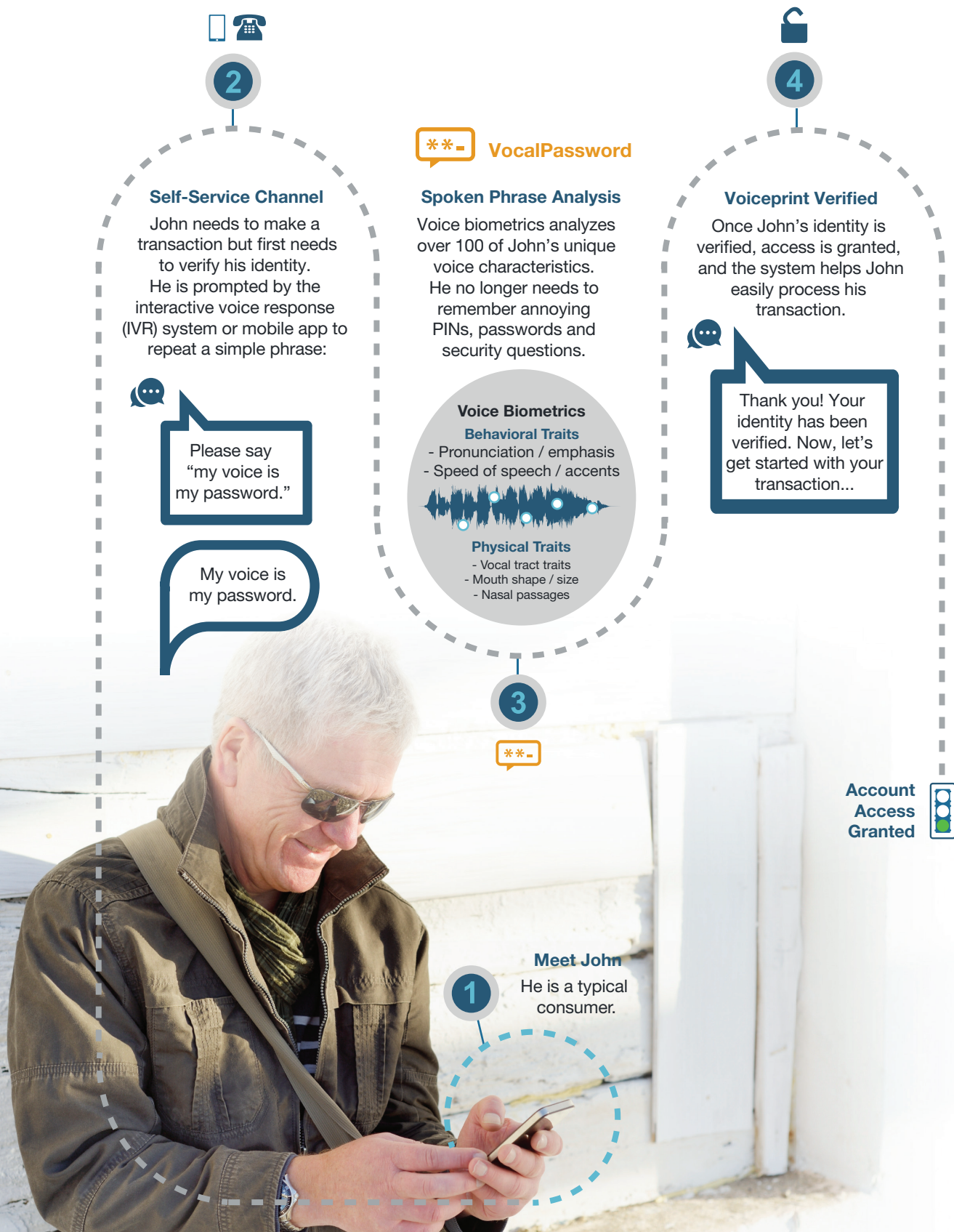
<sup>1</sup> Background model: representation of the rest of the world or "calibration" model created from a set of audio files from speakers representing a typical population.

<sup>2</sup> Deep Neural Network: New generation of computer learning developed by a handful of the world's largest tech research companies and applied to acoustic modeling for speech recognition. Nuance is the first organization to apply this technology for voice biometrics.



## Self-service customer authentication in the IVR, mobile app, and Web

Text-dependent voice biometrics using a passphrase such as “My voice is my password”





## Agent-assisted customer authentication in the contact center

Text-independent voice biometrics operates during live conversations



## Fraud detection and prevention

Identify known and new fraudsters through advanced alert and management tools



## Proactive fraudster detection and identification

Audio collected, stored and monitored for fraudster activity





## Market-leading technology proven in hundreds of real-world deployments

Customers, analysts name Nuance as the leader in voice biometric authentication for contact centers, IVR, mobile and the web:

- **Many Nuance customers are so impressed with the results that they want to expand usage of voice biometrics.** After successful implementation of Nuance's VocalPassword in the IVR, Banco Santander Mexico is now providing a "proof-of-life" authentication service for various government agencies in Mexico.
- **Customers recognize that a vendor's real-world experience is key for providing the products and advice they need.** "We chose Nuance for several reasons: firstly they are the industry leaders and were able to provide us with several examples of successful implementations." said Anne Grim, head of global client experience, Barclays Wealth and Investment Management. "The customer and employee satisfaction results speak for themselves. We're looking forward to working with Nuance in the future to use voice biometrics to authenticate even more processes. They are the industry leaders."
- **Opus Research ranked Nuance as the leader in voice biometrics.** "Nuance has demonstrated that the company is in the best position to meet the challenges of strong user authentication in the age of mobile, multichannel customer interactions," [said Dan Miller, senior analyst](#). "The breadth of Nuance's product line enables them to provide a secure user interface that includes voice biometric authentication, speech recognition, synthesized speech, natural language understanding, artificial intelligence, and mobile user interfaces."
- **Our innovation helps our customers to win awards for their innovation.** For example, Barclays FreeSpeech-based service won four awards in 2013 alone, including Banking Technology's Best Security Initiative, and The Banker's Wealth Management Technology Project of the Year.

### **About Nuance Voice Biometrics**

Nuance is the global leader in voice biometrics solutions, with more than 45 million enrolled voiceprints and a global customer base that spans all major industries. Over the past 20 years, Nuance has developed unrivaled experience in delivering successful voice biometric solutions that enable organizations to improve customer satisfaction, reduce costs and enhance security. For more information please visit our [Website](#).



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### **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](http://nuance.com).

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