Authentication and fraud prevention with biometrics

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September 13, 2021
Welcome

AGENDA

- Nuance Overview
- Nuance Gatekeeper Overview & Demo
- Questions
Nuance AI-powered Intelligent Engagement Portfolio

**Intelligent Engagement Solutions**
- Digital Engagement
  - Nuance Virtual Assistant
  - Nuance Live & Async Agent Assist
  - Nuance Messaging
  - Nuance Proactive Engagement
  - Nuance Dragon TV
  - Nuance Targeting
- Voice Engagement
  - Nuance Conversational IVR
  - Nuance Voice-to-Digital
  - Nuance Call Steering
- Agent Engagement
  - Nuance Human-in-Learning Loop
  - Nuance Agent Coach
  - Nuance Agent Desktop
  - Nuance Supervisor Desktop
- Authentication and Fraud Prevention
  - Nuance Gatekeeper
  - Nuance Security Suite
- Analytics
  - Nuance Insights
  - Nuance Analytics

**Intelligent Engagement AI Services, APIs & Tools**
- Rapid Application Development & DIY Tools and Dials
  - Nuance Mix
  - Nuance Digital Engagement Portal
  - Security & Biometrics Portal
- APIs and Microservices
  - Conversational AI Services
  - Engagement AI Services
  - Agent AI Services
  - Security AI Services
- Engines
  - Nuance Recognizer ASR
  - Nuance Vocalizer TTS
  - Nuance Advanced Dialog Engine
  - Nuance Natural Language Engine
  - Nuance Transcription Engine
  - Nuance Gatekeeper Engine

**AI Professional Services**
- Strategy and Planning Services
  - AI Business Consulting Services
  - Digital Transformation Strategy Services
  - IVR/Voice Channel Roadmap Services
  - Omni-Channel Roadmap Services
  - Customer Journey Services
- Design, Deploy, and Testing Services
  - AI UX & Application Services
  - Prediction Services
  - End-End Conversational AI Services
  - End-End Voice AI Services
  - Agent AI Services
  - End-End Security AI Services
  - Automated QA Services
  - Systems Integration Services
  - Launch Services
- Optimization Services
  - Continuous AI Optimization Services
  - Fraud Detection Services
- Managed Services
  - On-Premise
  - Cloud (Public, Private, Hybrid)
Nuance Security & Biometrics Solutions

500+
Deployments

600M+
Biometric prints

8B+
Annual transactions

$2B+
Fraud savings

80%
Global market share
Nuance: Undisputed Leadership

Most Innovative Biometrics Tech at RSA 2020

Nuance Gatekeeper
New Product-Service of the Year AI in Security GOLD WINNER

Intelligent Authentication Intelliview

Best Mobile Authentication & Security Solution

Best IVR or Web-Service Solution: Nuance Lighting Engine

Cyber Defense Global Award: Cutting Edge Biometrics

Opus Research, 2020 Intelligent Authentication and Fraud Prevention Intelliview, August 2020

Forrester Research, The New Wave™: Conversational AI for Customer Service, Q2 2019
Nuance named the leader in 2020 Opus Intelligent Authentication and Voice Biometrics Intelliview Report

Key Differentiators:

- **Comprehensive integrated authentication** and fraud prevention solution across digital and voice channels
- Industry-leading **authentication success rate (99%)**
- Continuous investment in core technology (including **4th generation DNN**)
- Industry-leading fraud prevention rate (90%)
- **Customers report better ROIs** than organizations that deploy competing solutions, including:
  - Higher fraud loss savings
- Expand **biometric authentication** & fraud detection to **digital channels**
- Ability to **detect net-new fraud** vectors:
  - First party fraud / Social engineering / Elderly abuse
Fraud Prevention Heroes

Fidelity Investments
Mark DiMarzio
VP, Risk

Prudential Financial
Greg Williamson
VP, InfoSec and IT Controls

BNY Mellon
Charles Gallant
Director, Asset Servicing

Barclays
Executive Fraud Team

Royal Bank of Scotland
Jason Costain
Head of Fraud Strategy

HSBC
Mark Bramley
Chief of Staff & Global Head of Voice

$500m fraud losses prevented in 2019
Why does this matter?

Account takeover fraud rates skyrocketed 282% over last year
ATO is the weapon of choice for fraudsters leading up to the holiday shopping season, new data from Sift shows, and consumers place account security burden on businesses.

By Esther Shein | September 30, 2020, 9:46 AM PST

HSBC UK’s VoiceID prevents £400m of attempted fraud

- HSBC UK has prevented almost £400 million of customers’ money from falling into the hands of telephone fraudsters in 2019
- Voice biometrics registered twice as many attempted fraud hits in 2019
- Since launch in 2016, customers have been verified more than 25 million times through VoiceID, with 35% of these verifications taking place in 2019 (8.75 million verifications)
“Voice ID has not only made telephone banking more convenient for customers accessing their accounts, but it has also been instrumental in stopping attempts at telephone banking fraud, protecting customers’ money.”

Kerri-Anne Mills
Head of Contact Centre and Customer Service
HSBC UK

- System go-live
- 2016
- Fraud calls detected
- More than 43,000
- Fraud losses prevented
- Over £981M

Customers enrolled
- 2.8M

https://www.about.hsbc.co.uk/news-and-media/hsbc-uks-voice-id-prevents-gbp249-million-of-attempted-fraud
Immediate Fraud Benefits

- Large global bank
- 50K agent-handled calls/day (18M/year)
- Fraud prevention only (no authentication)
- Post-call fraud analysis only (no real-time)
- Voice and ANI watchlist only (no other detectors)

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>#</th>
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<tbody>
<tr>
<td>Day 1</td>
<td>147</td>
</tr>
<tr>
<td>Week 1</td>
<td>198</td>
</tr>
<tr>
<td>Month 1</td>
<td>394</td>
</tr>
<tr>
<td>Current</td>
<td>~1200</td>
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</tbody>
</table>

“How long does it take to build a Watchlist?”

<table>
<thead>
<tr>
<th>Customers Affected</th>
<th>Balance Protected</th>
<th>Estimated savings</th>
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</thead>
<tbody>
<tr>
<td>Oct</td>
<td>36</td>
<td>$2,146,830</td>
</tr>
<tr>
<td>Nov</td>
<td>131</td>
<td>$5,519,239</td>
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<tr>
<td>Dec</td>
<td>195</td>
<td>$18,593,747</td>
</tr>
<tr>
<td>Jan</td>
<td>297</td>
<td>$29,973,200</td>
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<tr>
<td>Feb</td>
<td>341</td>
<td>$27,593,519</td>
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<tr>
<td>Mar</td>
<td>268</td>
<td>$16,836,691</td>
</tr>
<tr>
<td>Apr</td>
<td>248</td>
<td>$57,685,473</td>
</tr>
<tr>
<td>Total (CAD)</td>
<td>1516</td>
<td>$158,348,699</td>
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</tbody>
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“It’s not just about stopping financial loss… it’s about disrupting criminals…”

Jason Costain  
Head of Fraud Strategy and Relationship Management  
Royal Bank of Scotland
Credit card fraudster **life-span**

Attack rate following being added to watchlist

Nature of the attack means prevention success is high. Fraudsters eventually stop attacking.

They can recruit new voices, but this increases their costs, reducing their profit.

**We are disrupting their business model**
Nuance Fraud Nexus Team
White-glove support, services and guidance for every Nuance Gatekeeper customer

- In-house team of fraud experts based in Montréal:
  - Proactive monitoring of deployments
  - Periodic reporting to the customer
  - “Front desk” for questions, concerns, requests and recommendations
  - Consultation on fraud attacks
  - Fraud project support and supervision
  - Detection-as-a-service (extra fee)
Voice Authentication
Real-time Fraudster Detection

Live demo
Authenticate the person with Nuance

DNN-based AI risk engine

Biometrics
- Voice
- Behavior
- Conversation

Anti-spoofing
- ANI
- Synthetic speech
- Playback
- Liveness
- Bot/RAT

Environment
- Network
- Geo
- Device
- Channel

Other factors
- Language
- Age
- Other

Unique and inherent

Fast and easy to use

Proactive fraud prevention

Impossible to forget

Any channel or device
What are fraudsters saying?
How are fraudsters writing?

- Emojis
- Punctuation
- Vocabulary
- Spelling
- Sentence Structure
The goal

Monitor the individuals and the networks behind the fraud, the channels they interact on, instead of focusing on specific schemes and systems.
What can you expect the following days?
A week full of insights into Conversational AI

**Sep 13**
Authentication and fraud prevention with biometrics
Ariel Freidenberg

**Sep 14**
Conversational Design and Virtual Assistants
Dorothee Möller

**Sep 15**
Live Assist and the Customer Experience
Dorothee Möller

**Sep 16**
Create your own scalable, omnichannel CX
Jan van den Brink

**Sep 17**
Important things to consider for best customer experience
Christian Majgaard
Thank You