

May 4 - 1:00 p.m. – 1:45 p.m.

Welcome: Expanding Ecosystem for Voice Biometrics

Speakers:

- **Dan Miller**, Senior Analyst, Opus Research
- **Derek Top**, Director of Research, Opus Research

Welcome!

- Today's Agenda
 - Voice Biometrics (VB): Themes and Memes
 - Testimonials from the Contact Center
 - Debating the Burning Issues
 - Case Studies
 - Distance Learning & Welfare Services
 - Networking Reception (win an iPad!)

Up Next for Tomorrow

■ Day 2 Agenda

- Case Studies: Bank Leumi, T-Mobile, Bell Canada, Atos Origin, Federal Government of Mexico
- Panel Discussion: Mobile Authentication, Data Security & Information Services, Authentication-as-a-Service, Multifactor Authentication

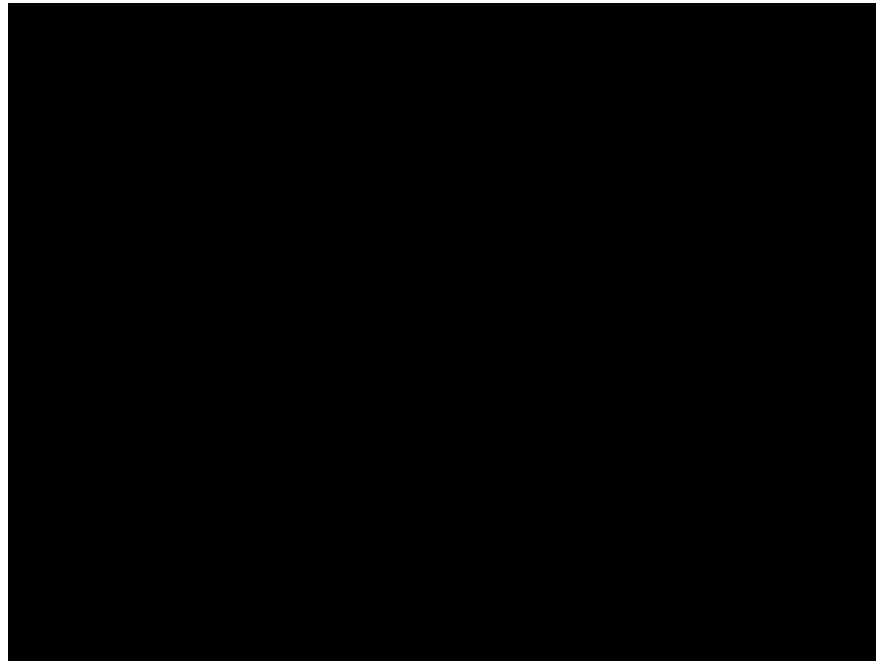
Even more case studies

- Deployments not showcased at Voice Biometrics Conference 2010:
 - National Australia Bank
 - Aviva
 - TD Waterhouse
 - Vodafone Turkey
 - Wellpoint
 - others...

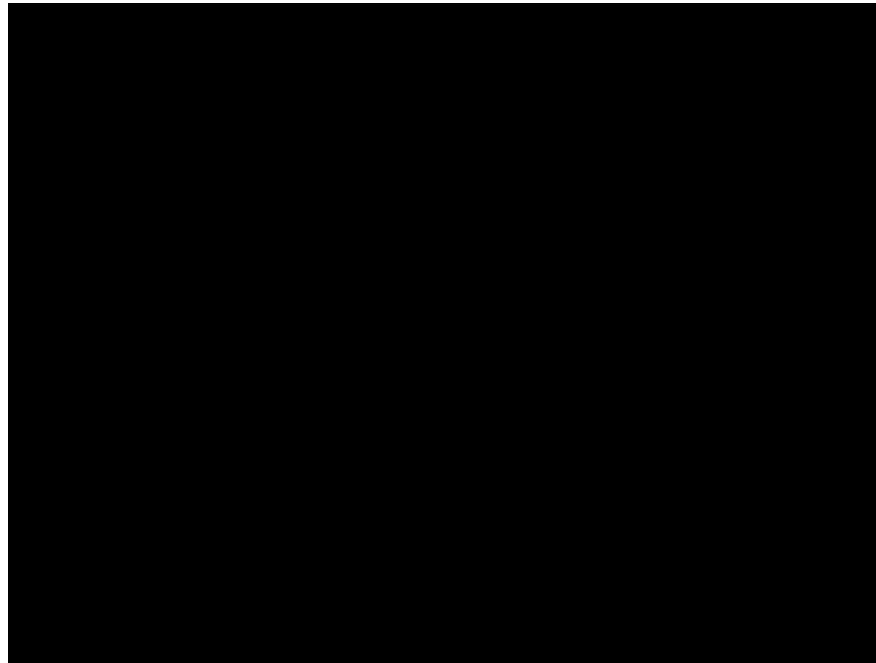
State of Voice Biometrics

- Not a new technology
- How the outside world views voice biometrics
- Some well-known mainstream media examples

My kids know about voice biometrics



More recent example



Getting the word out about VB

- Managing user expectations
- Overcoming – or embracing – stigma for biometrics
- Both an opportunity and challenge for the industry

The ultimate VB "pass phrase"

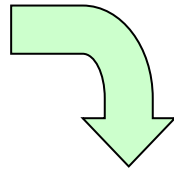
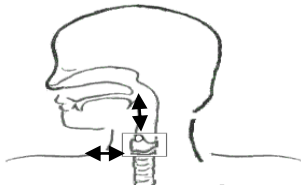


Truer words never said

■ You are what you say

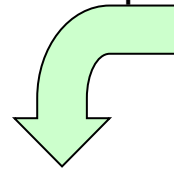
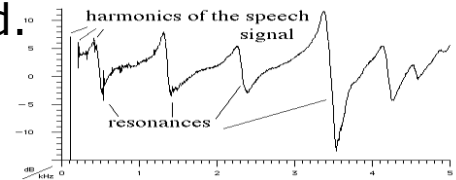
Physical Characteristics

The unique physical traits of the individual's vocal tract, such as shape and size.



Behavioral Characteristics

The harmonic and resonant frequencies, such as accents, the speed of your speech, and how words are pronounced and emphasized.



Voiceprint - Together these physiological and behavioral factors combine to produce unique voice patterns for every individual

But they are just a piece

- There's always a function
 - Speaker identification
 - Speaker verification
 - Speaker authentication
- And an application
 - Password reset
 - Access control (both physical and network)
 - Voice Signatures

Recombinant components

- IVR and voice application
 - For enrolment
 - ...and subsequent capture of utterance
- Biometric engine
 - Receives voice sample (“utterance”); compares it to a voiceprint (“template”)
 - Returns a score
- Business Logic
 - Decides if the caller passes or fails
 - Dictates required “next steps”

Requiring foundational ones

- Service delivery components
 - IVR (interactive voice response)
 - Biometric engine
 - Application server
- Trusted networks
 - Encrypted links
 - Secure storage
 - High levels of service

Authentication is important

- Foundational for trusted interaction
 - Through contact centers
 - Over mobile phones
 - Using social media
- Of value to customers
 - Prevents fraud
 - Promotes, well, authenticity
 - Protects privacy and anonymity

But there's an image problem

George Tubin, senior research director, [TowerGroup](#), says voice biometrics for authentication has always been a matter of "when, not if."

But he says voice biometrics "still needs work. There's background noise and connection issues. There's also the matter of how well it functions."

Bank Technology News, May 2010

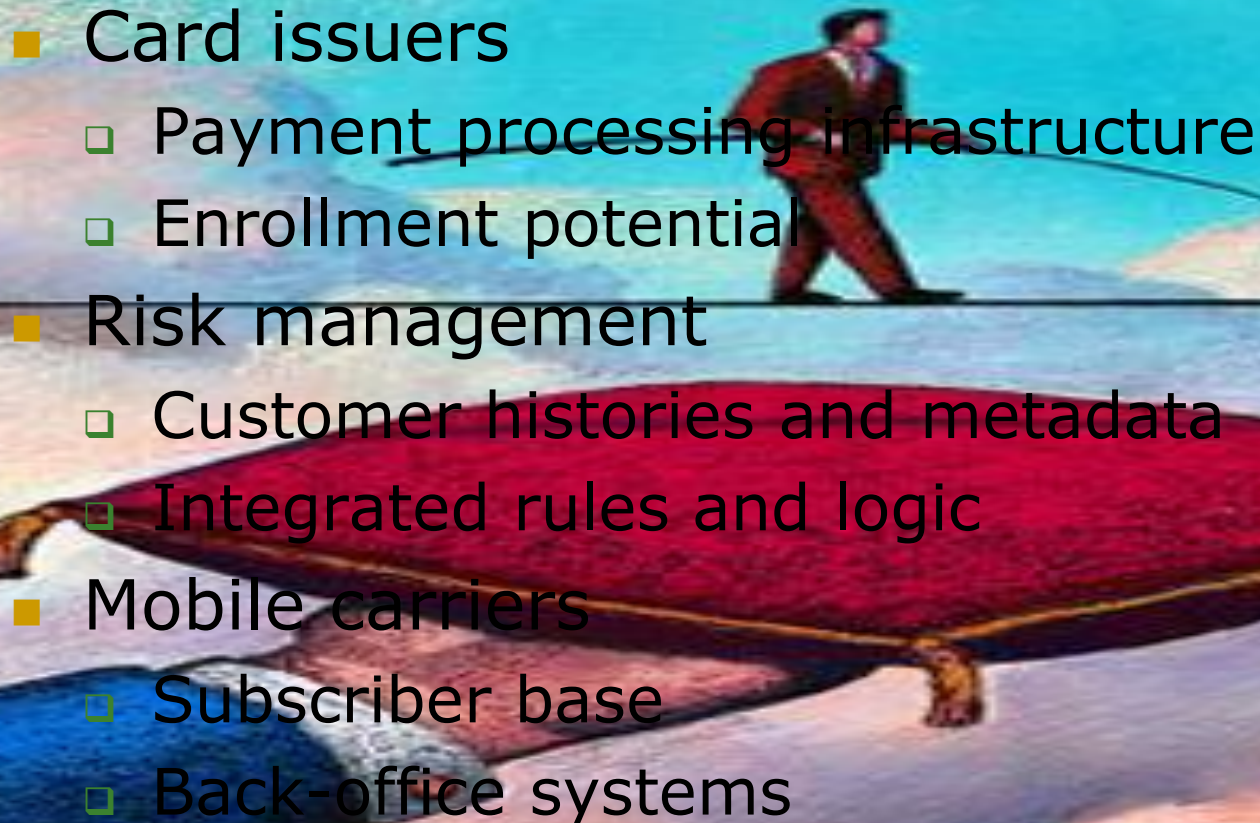
But we're working on it

- By identifying more use cases
 - E-commerce
 - Social nets
 - Secure mobile interactions
 - Fast phone-based and out-of-band auth
- By solving problems for verticals
 - Education
 - Healthcare and “pharma”

And by defining 'How to'

- Fulfill business objectives of verticals
- Work well across many disciplines
- Define key standards and best practices
- Augment existing infrastructure
 - Security
 - Customer care
 - Transaction processing
 - Mobility

Which introduces “The Others”

- 
- Card issuers
 - Payment processing infrastructure
 - Enrollment potential
 - Risk management
 - Customer histories and metadata
 - Integrated rules and logic
 - Mobile carriers
 - Subscriber base
 - Back-office systems

Which is why we're here

- To “network” and exchange ideas
- To answer questions and get questions answered
- To meet the folks with whom we've exchanged emails, FB posts & Tweets
- Take stock of how far we've come
- Figure out how to take the concepts further

Thanks!

- Dan Miller
dmiller@opusresearch.net
- Derek Top
dtop@opusresearch.net