



Voice Biometrics

100m+ Successful Authentications

Brett Beranek, Solutions Marketing Manager

Nuance Leadership

\$1.7 billion

in FY12 revenue with 28%
CAGR FY 06-12

7.5+ billion

conversational interactions
handled per year

30m+

Voiceprints in use
by our customers

1st

in virtual agent
deployments

4.5 billion

mobile transactions
annually

100m+

Successful voice biometric
verifications in 2012

1st

and only virtual assistant that
spans IVR, Mobile, Web and more

600 million

Web conversations
and growing

800

solution experts
worldwide

One Credential for Multiple Applications

Secure **employee to employee** ID validation



Secure **mobile app** authentication



Secure **web payments**



Centralized
Voice Profile



Secure **contact center** authentication



Secure **high-risk credit card** transaction



Automated **password** reset



Highlighted **Voice Biometric** Deployments Financial Institutions



<http://www.computerweekly.com/news/2240179218/Barclays-streamlines-phone-banking-with-voice-biometrics>



<http://security-today.com/articles/2010/05/12/israeli-banks-voice-biometrics.aspx>



<http://www.zdnet.com/au/nab-touts-voice-as-superior-biometrics-over-fingerprints-7000007637/>



<http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aF9oH5v36.Mo>



http://www.cio.com/article/686441/2011_CIO_100_How_Three_Companies_Are_Using_IT_to_Rethink_Consumer_Services



<http://security.networksasia.net/content/indonesias-bni-deploys-mfa-password-reset-ease>



<http://voicebiocon.com/2013/03/12/nuance-targets-password-reset-technology-for-small-and-mid-sized-businesses/>



<http://www.businesswire.com/news/home/20100415005768/en/Top-3-Israeli-Banks-Roll-Customer-Facing>

Highlighted Voice Biometric Deployments Telcom



<http://voicebiocon.com/2012/07/13/making-inroads-into-eastern-europe/>



http://www.turkcell.com.tr/c/docs/announcements/announcements_20120302_GlobalBilgi_Voice_bio_and_satisfaction.pdf



http://enterprise.alcatel-lucent.com/private/active_docs/customer_references/SS_NA_MTS_Allstream_Consulting_screen.pdf



<http://www.speechtechmag.com/Articles/?ArticleID=67963>



http://www.computerworld.com.au/article/186527/austar_outfoxes_its_rival_biometrics_solution/

POLSKA TELEFONIA CYFROWA S.A.

http://www.algotech.eu/news/news.html/8_170-t-mobile-as-the-first-in-poland-has-launched-a-voice-biometrics-based-service/2

IVR Authentication Example



- Over **97%** successful authentication rate
- **70%** of their customer base **enrolled** within 6 months of launch
- Reduced AHT by over **22 seconds**
- **Reduced call center fraud** over PIN-based authentication

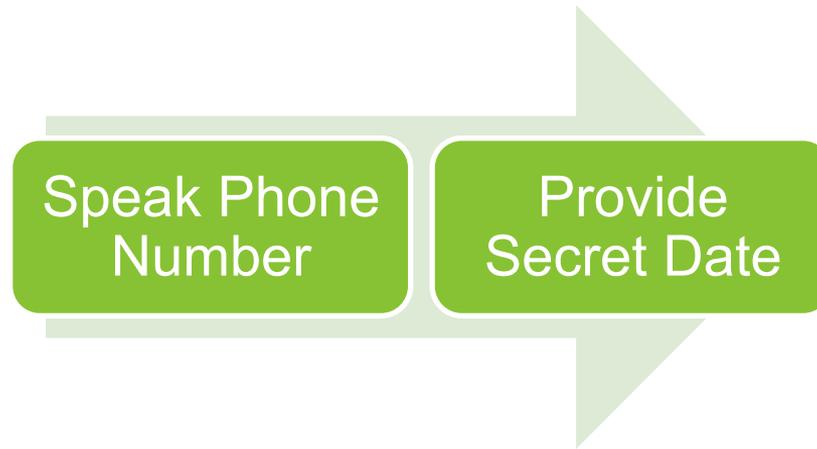
KEY DEPLOYMENT STRATEGIES

Opt-Out Enrollment
all callers are sent through the authentication process

All callers are asked for a second authentication factor, in this case a **secret date with a hint**

Agent incentives were provided incentives to enroll callers.

TD ID&V Process



**Two-Factor authentication process
compliant with FFIEC Guidelines**

Voice Print System



Secure,
convenient
telephone access

Welcome to the **Voice Print System***.

Your voice is your password to security and convenience

The **Voice Print System** is our telephone voice identification system that uses leading-edge biometric voice verification technology. Our system provides the enhanced security you need in today's world, along with the speed and convenience you've come to expect when calling us.

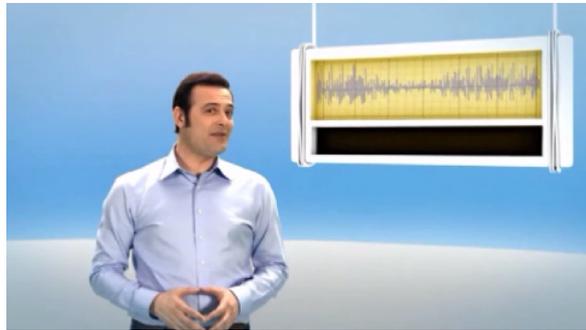
Now when you call us and use the Voice Print System, instead of being asked questions for verification by an Investment Representative, your voice will act as your instant access.

Benefits of using the Voice Print System include:

- **Enhanced Security:** Enjoy peace of mind knowing that your personal information and assets are always safe and secure - whenever and wherever you transact.
- **Easy to Enroll:** Our one-time only enrollment process takes as little as 2-3 minutes. [Learn how to enroll.](#)
- **Easy to Use:** After you're enrolled, the verification is quick and easy. Simply follow the prompts the next time you call in.

Marketing voice biometrics to their customers, TD Waterhouse **differentiates their services** from their competitors and gains a competitive advantage.

Use of Voice Biometrics in Advertising by Telcos



Call Center Authentication Example

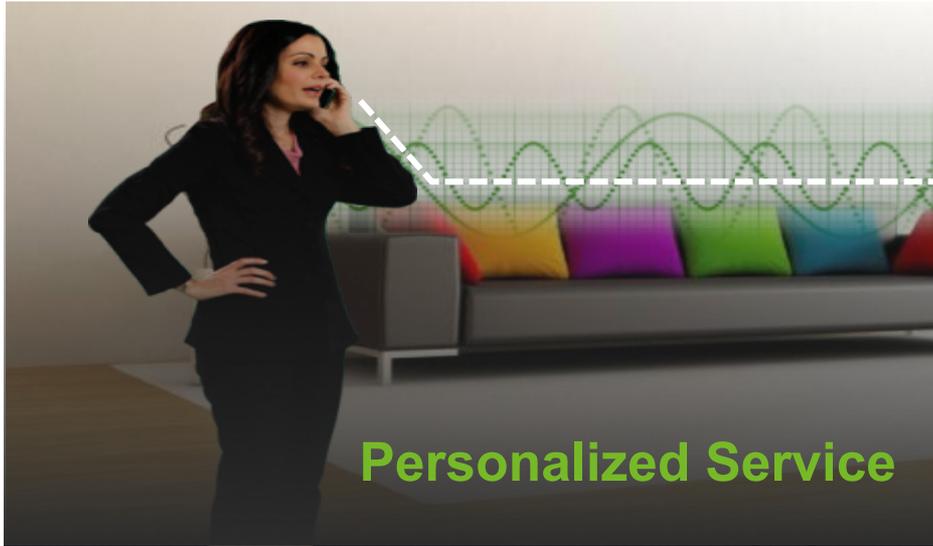


“Our people love it, our Customers love it and it is delivering improved cost to serve.”

Pete Mileham
Vice President, Barclays

- **Improved Customer Experience: 93%** of customers scored system at least 9 out of 10 for speed, ease of use and security

Agent Authentication



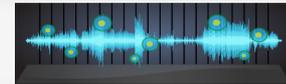
Personalized Service



VB Bank

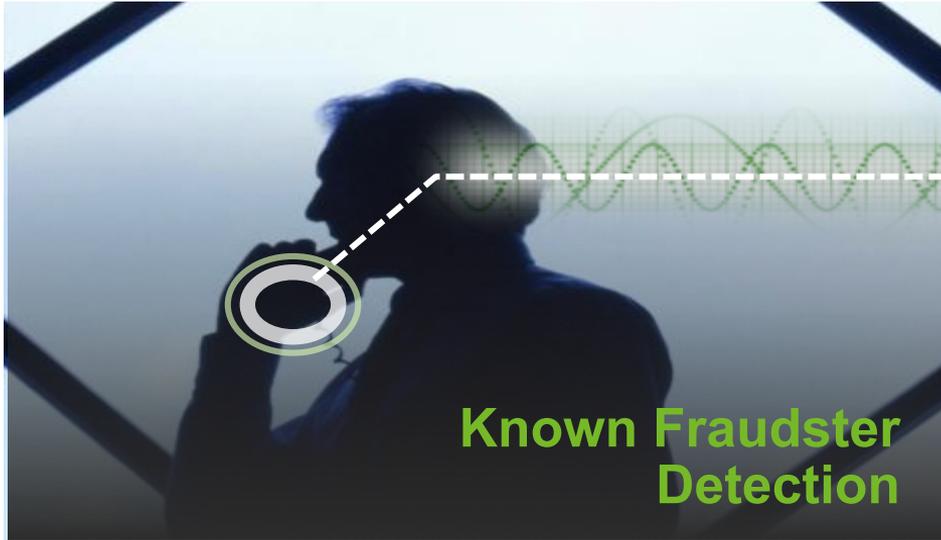
Account Holder: **Carol Foster**
Account No: **4756-95786**

ID Verified



Transfer Amount: **\$10,000**
Transfer to Account: **26-798-11**

Fraudster Detection



Known Fraudster
Detection





“For the employee, FastReset eliminates the frustration of forgotten passwords and security questions, which we’ve all experienced. And for the organization it cuts costs by automating the process, allowing the help desk team to focus on more complex call types. It’s really a win-win for all of us.”

Don Westermann, CTO, Eastern Bank

Why VB for the Mobile App?

- Increase self-serve usage by reducing authentication failure rates
- Add self-serve high-risk transaction capabilities
- Enroll customer voiceprints for use within other channels



A woman with long, wavy brown hair is shown in profile, smiling and looking towards the right. She is wearing a dark top. In the foreground, there are several large, vibrant pink flowers. Behind her is a black metal gate with gold-colored finials. In the background, a building with a black awning and a sign with the number '70' is visible. A white van and a dark car are parked on the street.

Nina in Banking App Scenario

VB for the Web - illustrated



Username + Password =
1st Factor of authentication

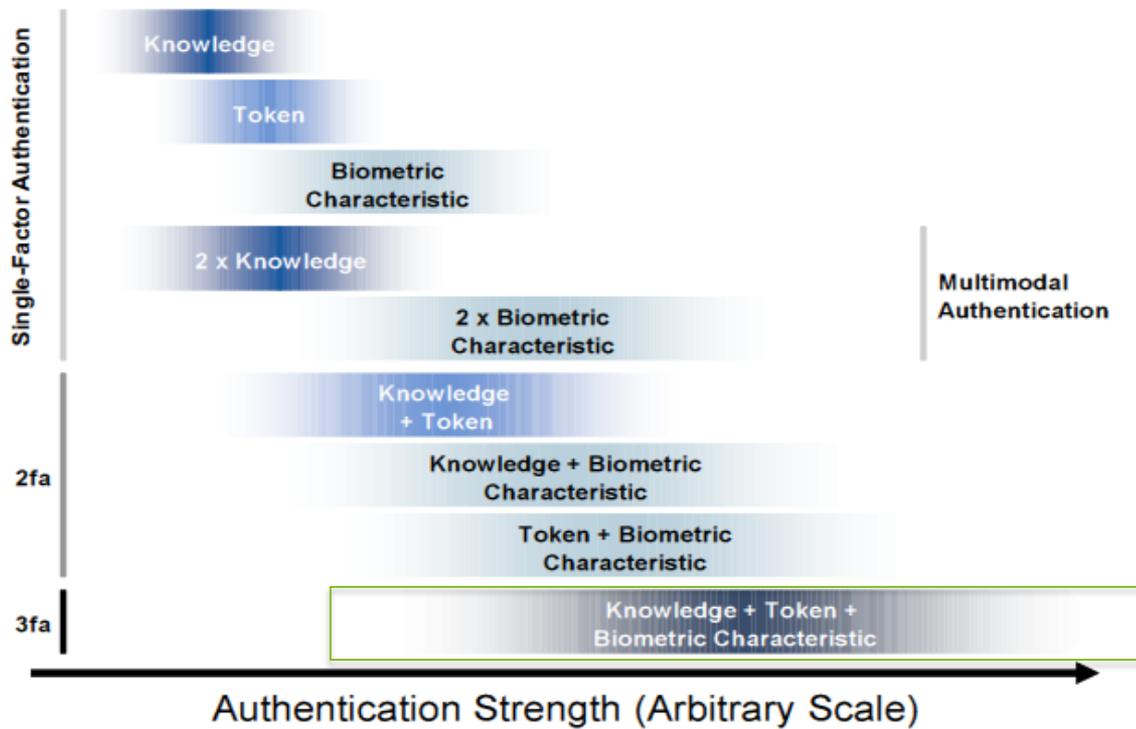


Out-of-band Phone =
2nd Factor of Authentication

**“Yes, I authorize this
transaction”**

Voice Biometrics =
3rd Factor of Authentication

More Secure than Alternatives



Source: Gartner (September 2011)

Why are Enterprises Deploying Voice Biometrics?

- Customers **Love It!**
 - Improved customer retention
 - New customer acquisition
- VB **security** benefits are proven
 - Consistently reduces fraud over PIN, password or Q&A
- VB **financial** benefits are compelling
 - Improved self-service, reducing call center costs
 - Increased revenue (with agent handled calls)

90%

prefer **voice**
biometrics over
alternative
authentication
methods

More Secure than Alternatives

Security Vulnerability	PIN	Security Questions	Voice Biometrics
Brute Force Attack	Medium 10%+ success rate	N/A	Low 0.1% to 0.5% success rate
Credential Sharing	High 100% success rate	N/A	Low 0.5% to 2% success rate
Hacking	Low	Low	None 0% Success rate
Phishing	High 72% success rate	High 72% success rate	N/A
Vhishing	Medium	Medium	Low 0.5% to 2% success rate
Credential Reset	High	N/A	Low
Internet Search	N/A	High	N/A
Social Engineering	N/A	High 67% success rate	N/A

Key Benefits for the Enterprise



Reduced Calls to the Call Center

Reduced Average Handle Time (AHT)

Increased Revenue Through Higher Upsell Close Ratio

**Increased Customer Satisfaction –
Improved Customer Retention and New Customer Acquisition**

Increased Agent Satisfaction – Reduced Employee Turnover

Reduced Fraud

Voice Biometrics

Easy - Secure - Cross-Channel Authentication

