Securing Voice Biometrics Applications

#VBCSF2014

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AGNITiO Voice iD

Secure . Universal . Natural

Your Voice is unique

We create

Voice iD

that powers solutions to authenticate people and prevent crime and fraud.

Why Voice iD ?

Secure
- *As accurate as other Biometrics factors*
- *Can be spoof-protected and revocable*
- *Ideal for second factor authentication*

Universal
- *Ubiquitous, always available on all devices, low cost*
- *Flexible and easy to integrate, enables a diverse set of partner applications*
- *Language independent technology*

Natural
- *Natural for people to use. The most accepted Biometric factor in all studies.*
- *Fast and simple enrollment, no enrollment for passive detection*
- *The most natural way to interact with smart phones*

AGNITiO's Voice iD Security

Secure

High Accuracy
• *Accurate. tested in most challenging environments*

Anti - Spoofing
• *Protected against Replay attacks, voice synthesis…*

Anti - Hacking.
• *Protected against Binary and memory tampering*

Secure. Universal. Natural

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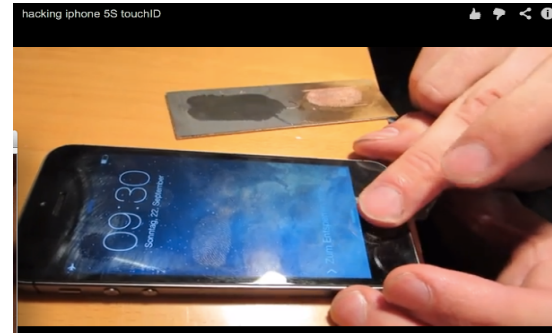- *Protected against Binary and memory tampering*

Secure. Universal. Natural

Proof of Life

Types of VB Spoofing

- Replay attacks
  - *Recording when user says the pass phrase, or with cut & paste*
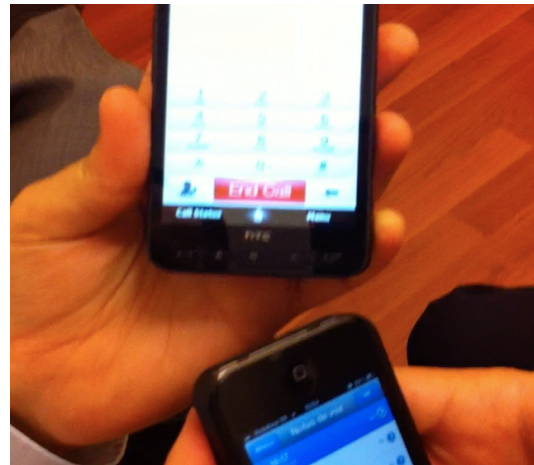- Voice synthesis
- Artificial Signals

The perception of the market is that VB is "easy to spoof"

YouTube video of fingerprint Spoofing for Apple 5S

Proofs of Life (Against recordings)

- **No Protection**
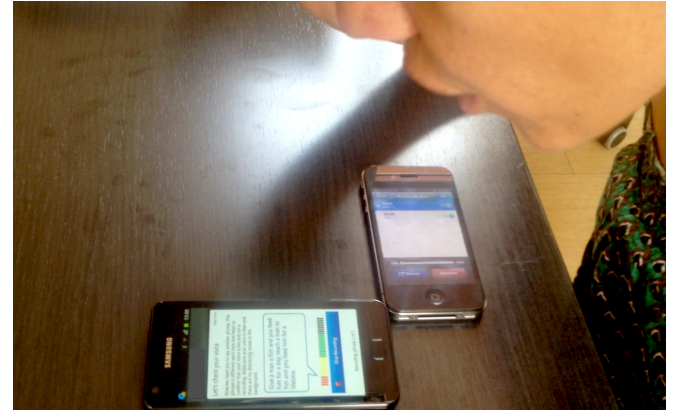
Unpublished video of VB Spoofing in a real life call center deployment
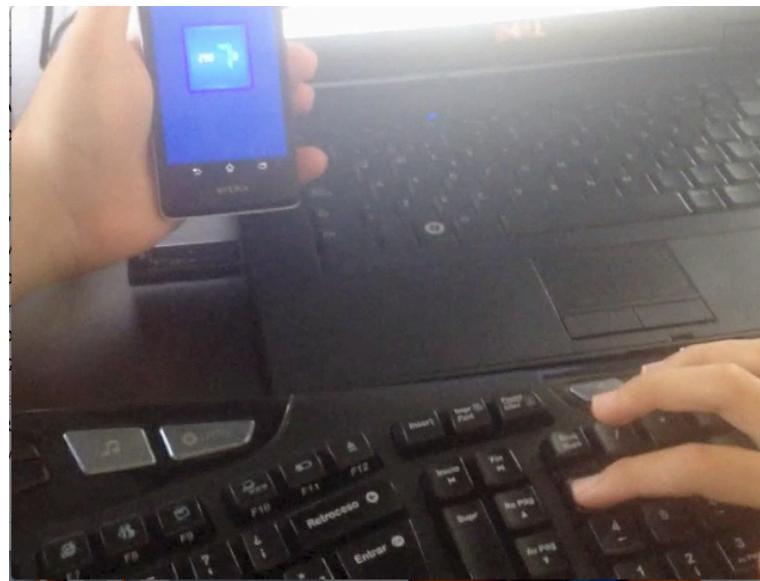
Proofs of Life (Against recordings)

- No Protection.

- **Random free text.**

Unpublished video spoofing Random Free text proof of life in real life deployment

Proofs of Life (Against recordings)

- No Protection
- Random free text.

• Random digits.

Unpublished video spoofing Random Digits proof of life in real life deployment

Proofs of Life (Against recordings)

- No Protection

- Random free text.

- Random digits.

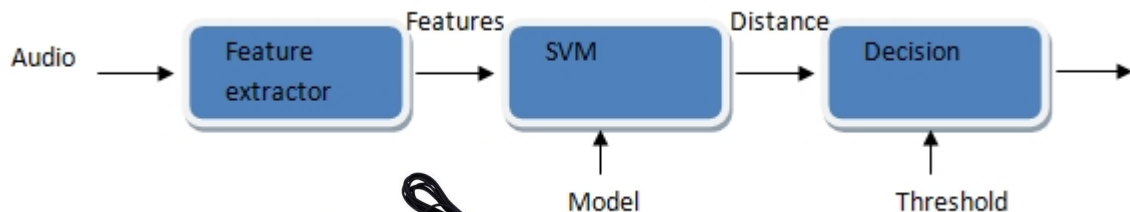- **Comparison with previous recordings**

Proofs of Life (Against recordings)

- No Protection
- Random free text.
- Random digits.
- Comparison with previ recordings.

- **SVM Modeling of recorders/speakers prints**

Proofs of Life (Against recordings)

- No Protection

- Random free text.

- Random digits.

- Comparison with previous recordings.

- SVM Modeling of recorders/ speakers prints.

Multilayer (Passive/Active)

Anti-Spoofing Mechanisms and Patents

- Proprietary patented algorithms that

  - *Recognize replay attack patterns*
    (no need to add steps in workflow, as in "proof of life")

  - *Recognize "Cut & Paste", far field recordings*

  - *Spoofing scores and thresholds*

- Multi layer Passive & Active AS

- 4 patents

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Fast ID On-line

6 founding members at launch in Feb '13 …

PayPal™

Nok Nok LABS

infineon

lenovo® FOR THOSE WHO DO.™

AGNITiO Voice iD

Synaptics®

fido Alliance

AGNITiO Voice ID

6 founding members at launch in Feb '13   …growing up to 100+

salesforce

IdentityX

Google

SAMSUNG

ca technologies

DELL

SAFRAN Morpho

CrucialTec

Entersekt

plug-up INTERNATIONAL

PayPal

NXP

Goldman Sachs

Nok Nok LABS

Bank of America

infineon

lenovo FOR THOSE WHO DO.

oberthur TECHNOLOGIES THE M COMPANY

aetna

BlackBerry

Ping Identity

AGNITiO Voice iD

Synaptics

SafeNet

THE DATA PROTECTION COMPANY

RSA

DISCOVER

Password Box

NETFLIX

OSD Österreichische Staatsdruckerei

Microsoft

ARM

MasterCard

NEXT BIOMETRICS

LG LG Electronics

yubico Trust the Net.

MicroStrategy

IDEX THE ID OF YOU

Oberthur m-Wallet

- CARTES 2013, Paris – SESAME Award

TRUSTED INTERNET / AUTHENTICATION

Oberthur Technologies-Agnitio

My voice is my password

"My voice is my password" is a service based on biometrics which eases and secures the online or mobile customer experience. Sensitive data such as the voice pattern are stored in the SIM. Voice biometrics is a kind of two-factor authentication (voice and passphrase), which is revocable (thanks to the passphrase), and has strong Anti-Spoofing capabilities thanks to Agnitio's technology.

KIVOX mobile