

IS THE FINANCIAL WORLD READY FOR BIOMETRIC VOICE VERIFICATION?

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AGENDA

- ◆ Introduction ABN AMRO
- ◆ Why voice verification?
- ◆ Is the technique ready?
- ◆ Are the customers ready?
- ◆ Are the financial institutions ready?
- ◆ Conclusion



INTRODUCTION ABN AMRO

- ◆ ABN AMRO is a leading international bank with total assets of Euro 1055 billion
- ◆ 4,500 branches in more than 53 countries
- ◆ Over 107,000 full time equivalents worldwide
- ◆ Dutch Customer Contact Centre receives 35m calls per year, 7m routed to live agents



WHY VOICE VERIFICATION?

- ◆ Increase accessibility of the Customer Contact Centre (combined with speech navigation)
- ◆ Customers currently use a 5 digit Telephone Identification Code
 - ◆ One factor authentication
 - ◆ Customers keep forgetting them
 - ◆ Expensive to (re-)issue
- ◆ Voice Verification is:
 - ◆ Safe
 - ◆ Easy
 - ◆ Innovative



SUPPLIER SELECTION

- ◆ Detailed RFP issued to 5 worldwide vendors
- ◆ Evaluated two in detail
 - ◆ On site visits to current customers
- ◆ Selected VoiceVault
 - ◆ Niche player focused on voice verification
 - ◆ Separate research facility
 - ◆ Based on 117 biometric characteristics
 - ◆ Excellent performance on cross phone
 - ◆ Dynamic voice model
 - ◆ Detection of recordings (replay attack)

IS THE TECHNIQUE READY?

- ◆ Proof of concept 1,450 people, > 30,000 calls
- ◆ Cross phone, colds, family members, recordings

- ◆ Two stages:

- ◆ Account number
- ◆ Answer to a secret question

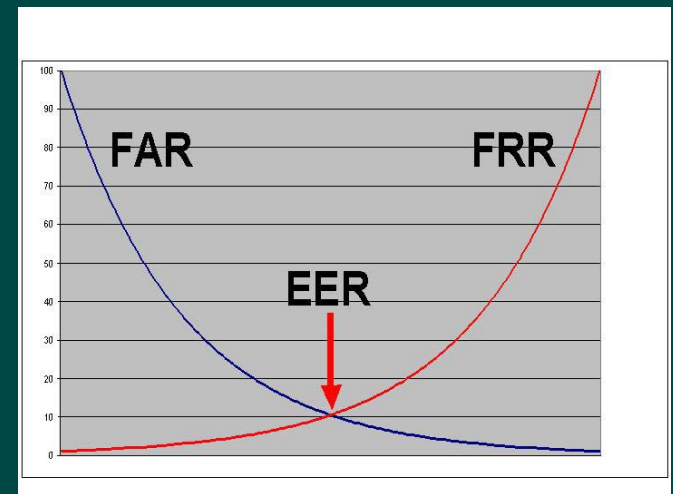


Wave Sound

- ◆ False reject, False accept, EER

- ◆ Proof of concept objectives were met:

- ◆ In literature suppliers mention EER's around 2 %
- ◆ VoiceVault proof of concept results were significantly better
- ◆ EER is under 1% (without answer to secret question)



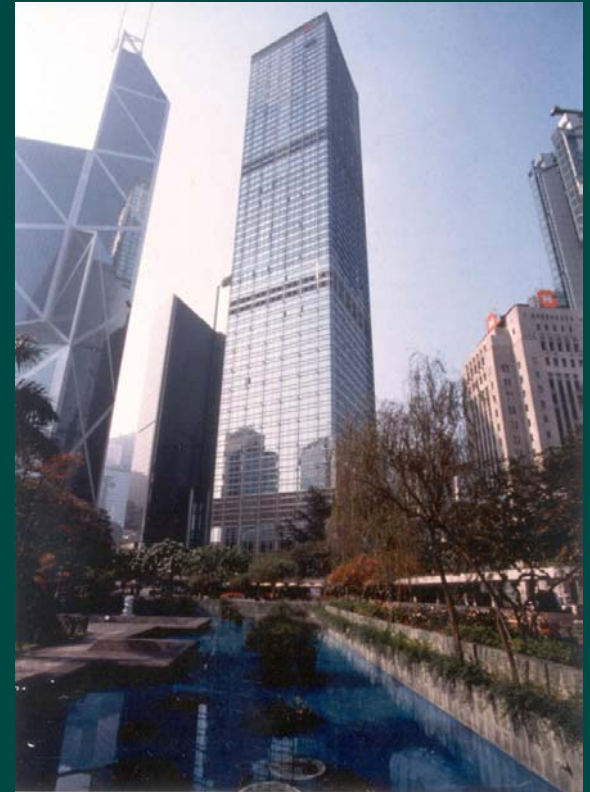
ARE THE CUSTOMERS READY?

- ◆ A lot of biometric issues in the media:
 - ◆ Fingerprints when entering USA
 - ◆ Biometric passport in the Netherlands
 - ◆ Iris scan for frequent flyers in airport Amsterdam
 - ◆ Face recognition in soccer stadiums
- ◆ Findings during the proof of concept:
 - ◆ 83 % prefer voice verification over the current 5 digit code
 - ◆ 99 % would use it for account info
 - ◆ 73 % would use it for money transfer



ARE FINANCIAL INSTITUTIONS READY?

- ◆ Based on the proof of concept ABN AMRO decided to implement voice verification
 - ◆ Roll out in 2007 & 2008 as an extension of access control security
 - ◆ To the entire customer base in the Netherlands - 4 million clients
 - ◆ On a voluntary basis
 - ◆ Balance information, money transfer, stock trading
- ◆ Will other banks follow?



CONCLUSION

- ◆ Voice verification is a new and exciting technique with potential benefits for customers (ease of use) and financial institutions (safe)
- ◆ A thorough preparation is necessary

