

# **Embedded Voice Biometrics For Mobile & Consumer Electronics**

- **Why Embedded Voice Biometrics?**
- **The TrulyHandsfree Approach**
- **Uses of Speaker Verification and ID in CE**
- **Improving Accuracy and What the Future Holds**

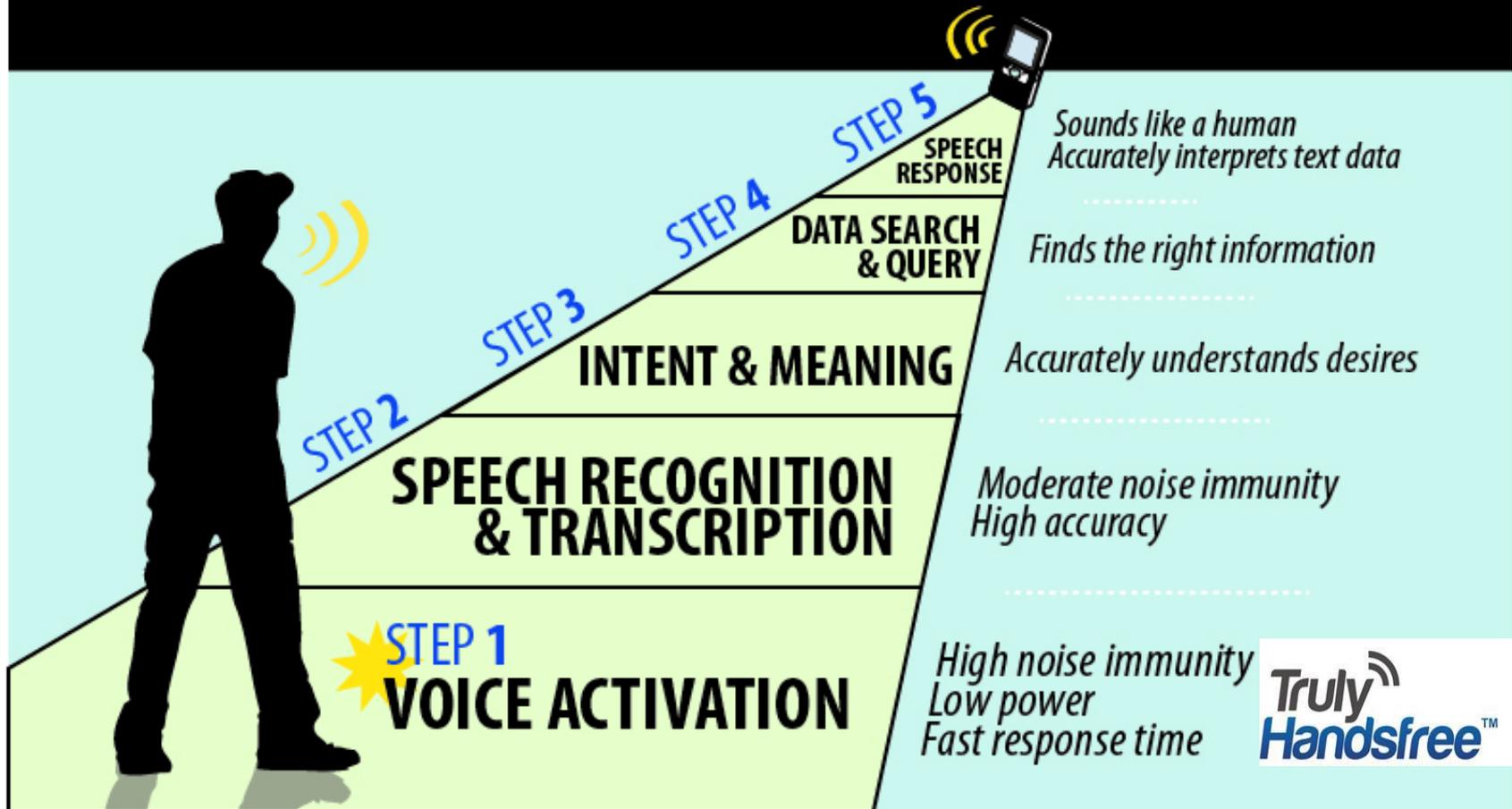


## ***Why Embedded Biometrics?***

- **Smaller footprint**
  - Lower cost consumer devices
  - Works more efficiently in the cloud too!
- **Lower power**
  - Green
  - Less battery replacement/longer lasting devices
  - Saves \$\$ to consumer
- **No cloud/connection needed**
  - Always works
  - Faster responses
  - Lower cost
- **Can improve accuracy-independent approaches**
  - Comparison between client and cloud biometrics
  - Spot checks if/when needed

# Truly Handsfree & VUI Components

## KEY COMPONENTS OF: THE MOST NATURAL USER INTERFACE: **SPEECH**



# ***Speaker Verification & ID in Consumer Electronics***

- **Speaker Verification to NOT Respond**
- **Speaker Verification for Security**
  - Lets right user in keeps others out
  - Examples:
    - Keep children from turning on stove/burners
    - Backdoor lock for joggers
    - Mobile phone easy access/entrance
- **Speaker ID for shared products**
  - Remembers presets, favorites, history, etc.
  - Adds security and convenience
- **User defined speaker verification**
- **Training/Adaptation**

# Diverse and Growing Customer Base In Consumer Electronics

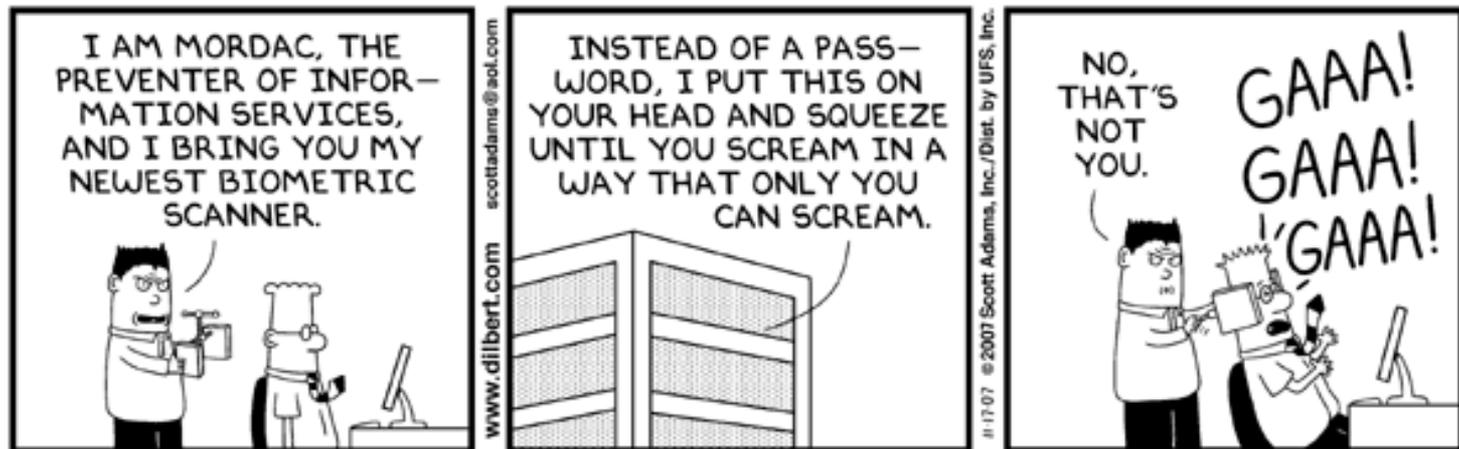
Telephony	Automotive	Home Electronics	Toys & Learning	Bluetooth
       	       	         	        	       

**More Customers, More Products, More Experience**

## *A few demo's*

# THF Speaker Verification

<http://www.youtube.com/watch?v=9Ib0WR5YgSM>



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# THF Speaker ID

<http://www.youtube.com/watch?v=OypENHHrDfk>

## ***Future courses For Embedded Biometrics***

- **Improve accuracy by combining 2 different independent approaches**
  - Combine Platforms - Client & Cloud
  - Combine sensors - Voice & Vision
  - Combined Tech - Sensory's Hybrid SV
- **Increasing Client/Cloud Interactions**
  - FIDO Alliance
  - Security for transactions
  - Transactions through mobile devices and CE
  - "I want to buy that song"

# ***THANKS!!!***

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**THF 3.0 with USER DEFINED SV and SID**

[http://www.youtube.com/watch?v=Kjp2QpgkIT4&feature=player\\_embedded](http://www.youtube.com/watch?v=Kjp2QpgkIT4&feature=player_embedded)

