

# **Mobile Device Audio Personalization**

## **A Cost-Effective Alternative to Captioned Telephone Service and Traditional Amplifiers**

December 6<sup>th</sup>, 2017



MOBILE TECHNOLOGY  
IS ENRICHING OUR  
LIVES.

IT PROVIDES A VOICE  
AND INDEPENDENCE  
TO THOSE WITHOUT.

# HEARING AS AN INDIVIDUAL EXPERIENCE

RAZ

- Hearing is an individual experience. Each of us has a unique hearing “earprint”. This is why no sound system is optimal for everyone.



- So how would you know the exact right balance for you?
- And how can you get this great sound to go with you everywhere?

# PRODUCT

RAZ

- **TuneFork** is an audio personalization technology software that helps you find your unique “earprint”, giving you the optimal hearing experience anywhere you go.



**TuneFork**  
It's much more than it sounds

[www.razmobility.com](http://www.razmobility.com)

# TUNEFORK & RAZ MOBILITY

The RAZ logo consists of a solid magenta square with the word "RAZ" in white, uppercase, sans-serif font centered within it.

- TuneFork is working with RAZ Mobility to make its solution available to State Equipment Distribution Programs.
- TuneFork solution combined with mobile devices enables hard of hearing consumers to communicate without captioned telephone service, or traditional amplified home phones.
- RAZ Mobility and TuneFork will be conducting a self-funded Trial with the Virginia Department for the Deaf and Hard of Hearing in 2018.

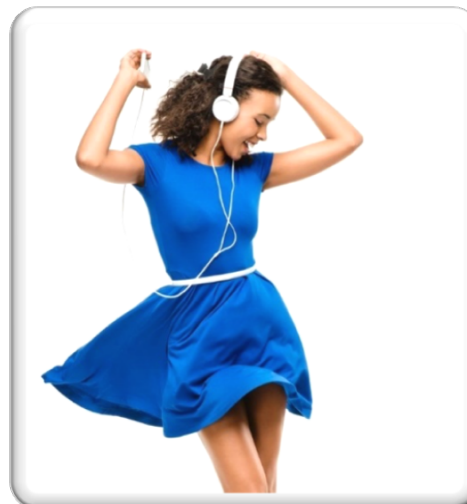
# HOW DOES IT WORK?

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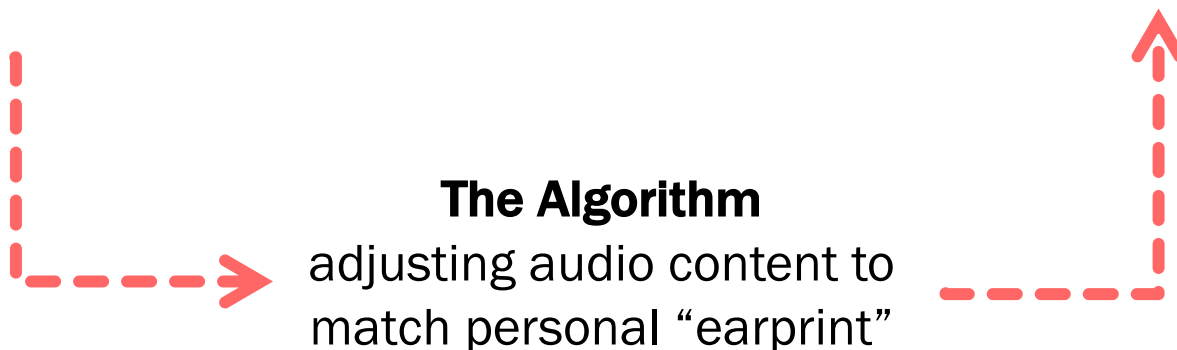
## Self Hearing Test

Requires only the app and personal earphones



## Tailor-made Sound

Including phone calls, videos, music etc.



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It's much more than it sounds

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# HEARING SELF-TEST

RAZ

Requires only a smartphone and regular headphones

Users will get clinical accuracy with almost every pair of functioning headphones

The test have to take place in a quiet environment (such as a bedroom)

6-7 minutes for the full test

Option for a shorter version

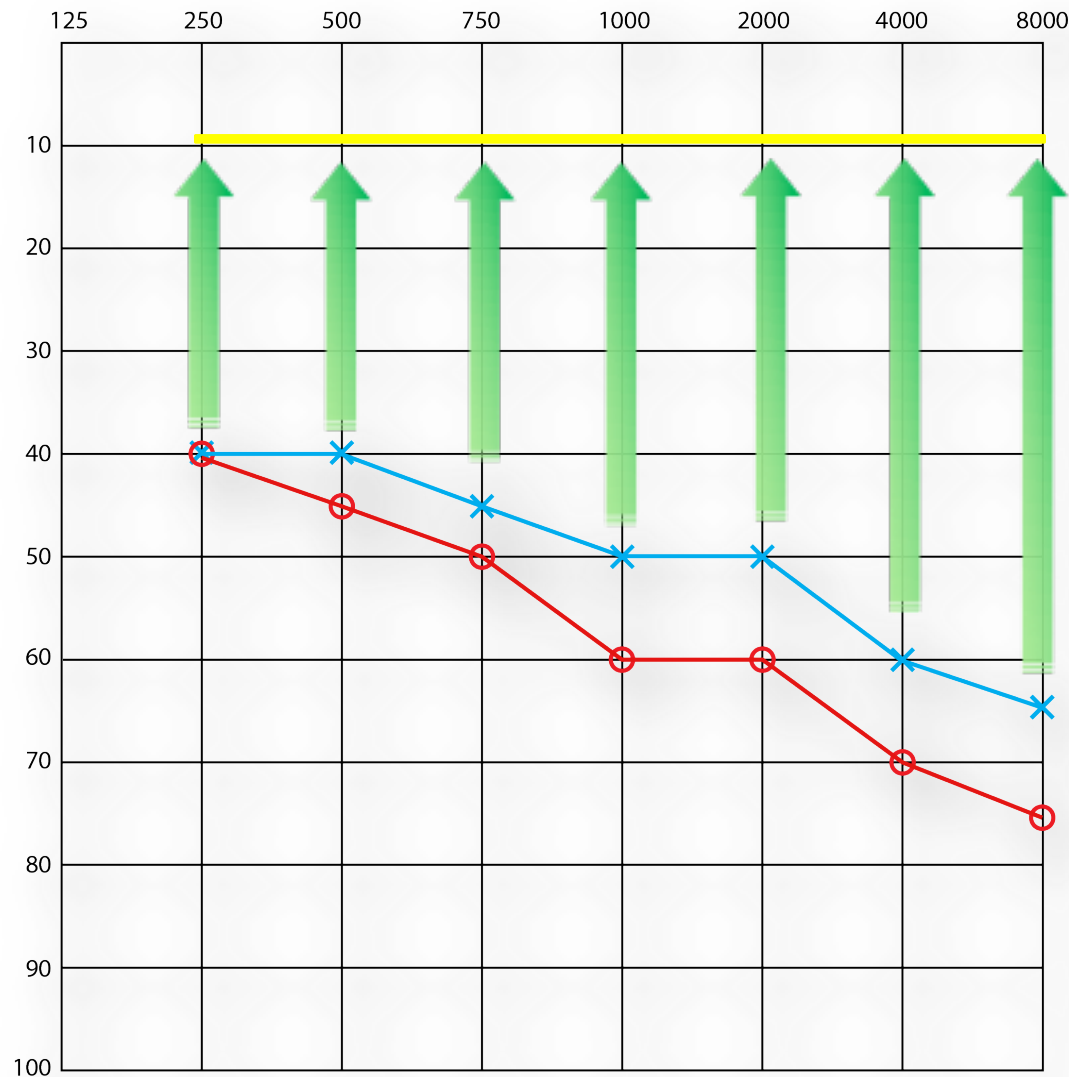


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# HOW DOES IT WORK?

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- Audio personalization example.

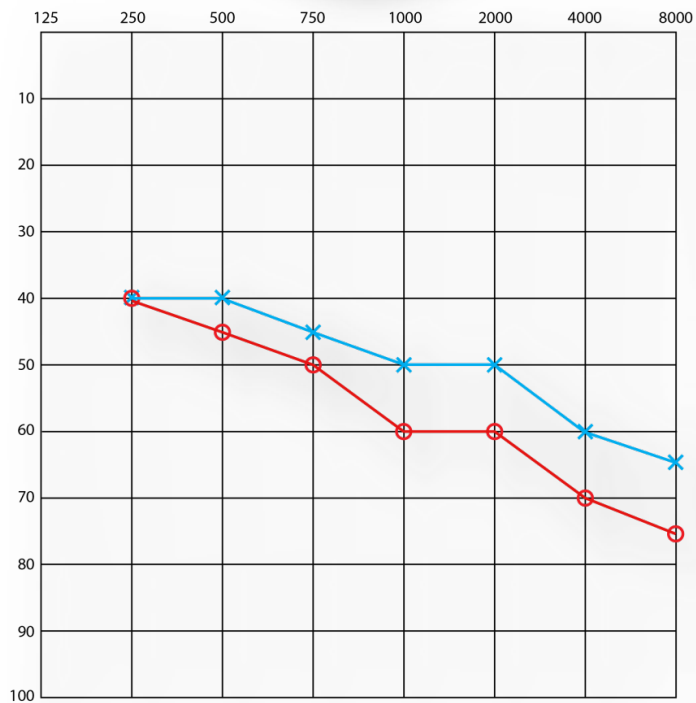
**TyneFork**  
It's much more than it sounds

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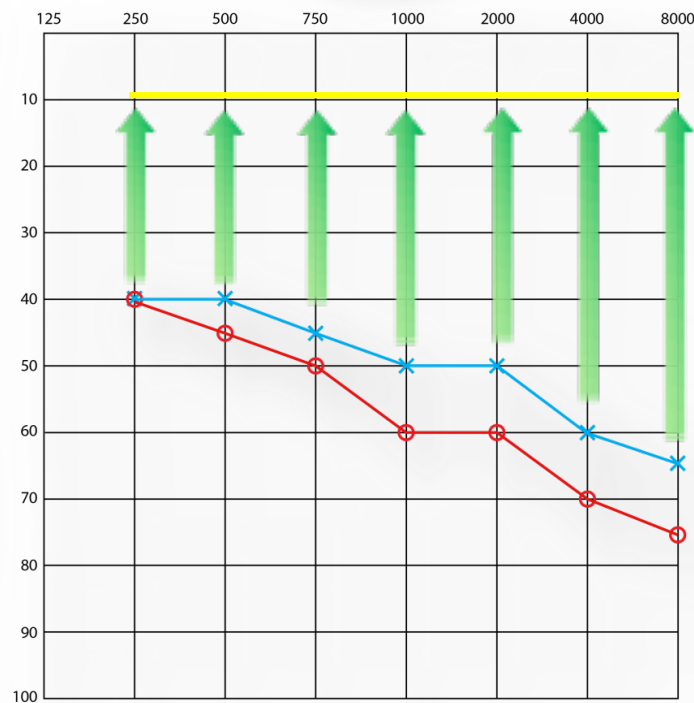
# TAYLOR-MADE SOUND – Concept

RAZ

Hearing without  
TUNEFORK technology



Hearing with  
TUNEFORK technology



**TuneFork**  
It's much more than it sounds

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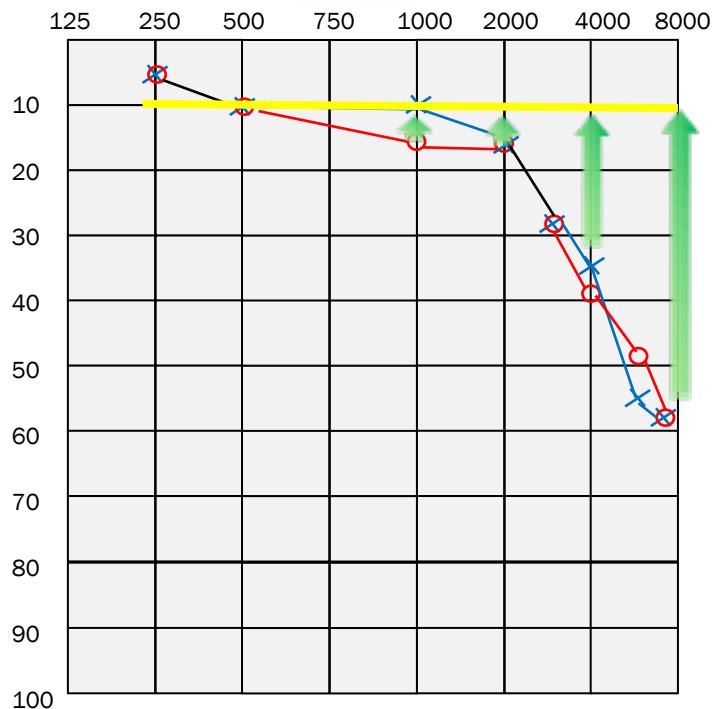
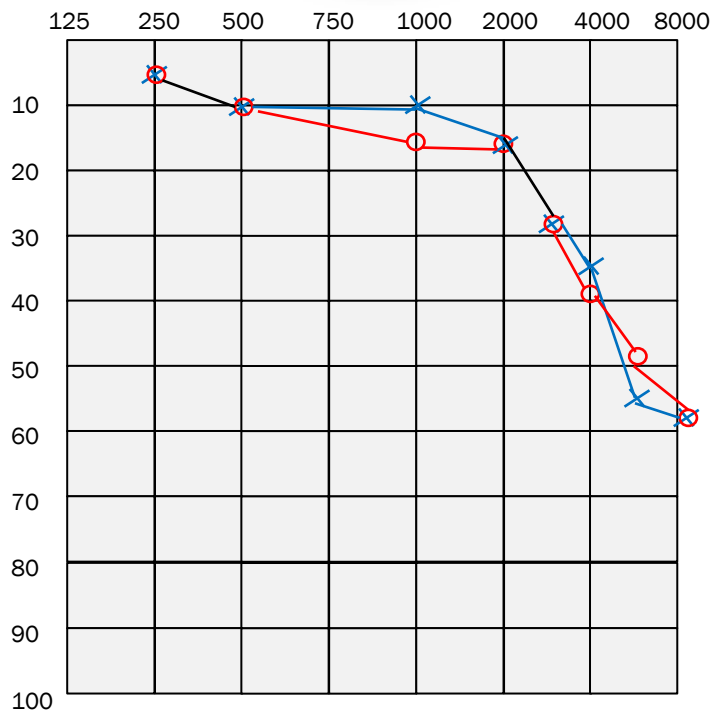
# TAYLOR-MADE SOUND – Example #1

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Hearing without  
TUNEFORK technology



Hearing with  
TUNEFORK technology



- User #1 – “Ski slope”. Common hearing loss profile among elderly.

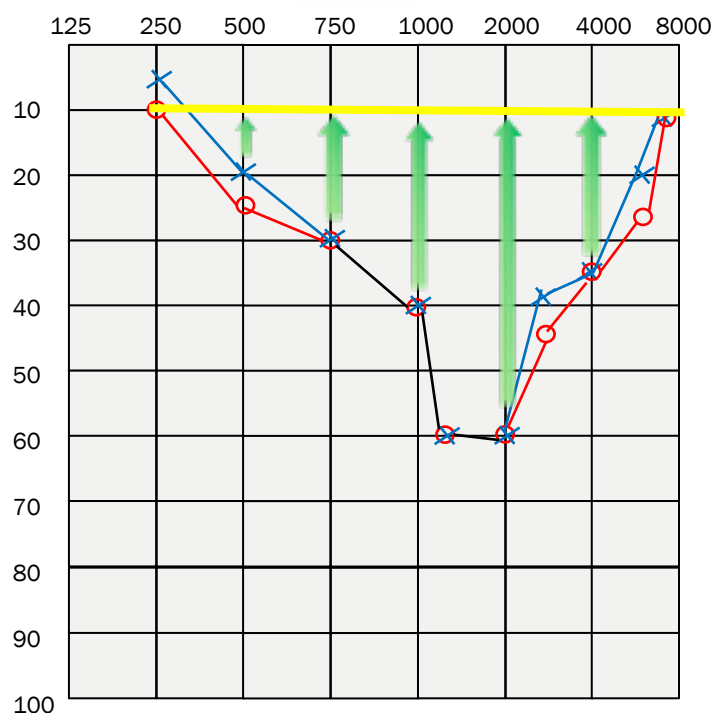
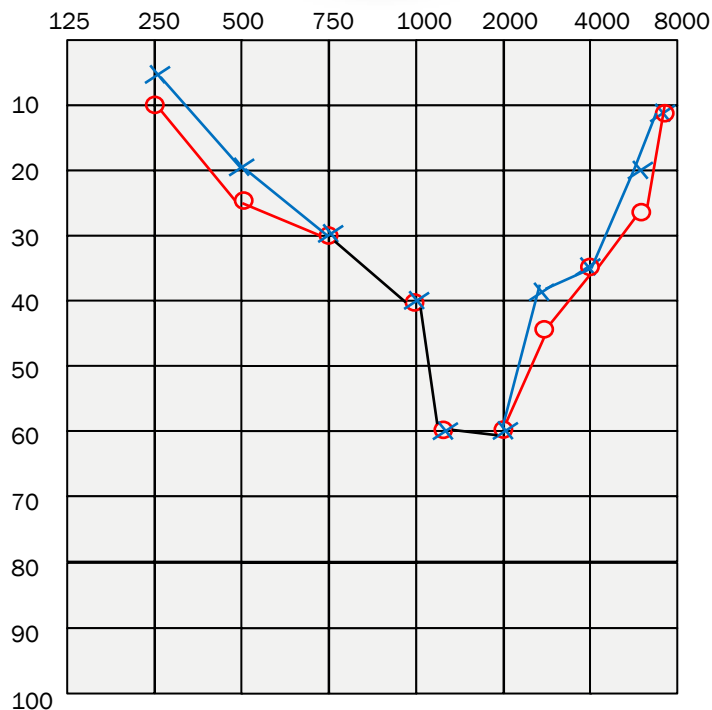
# TAYLOR-MADE SOUND – Example #2

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Hearing without  
TUNEFORK technology



Hearing with  
TUNEFORK technology



- User #2 – “u-shape”. Common hearing loss profile due to noise.

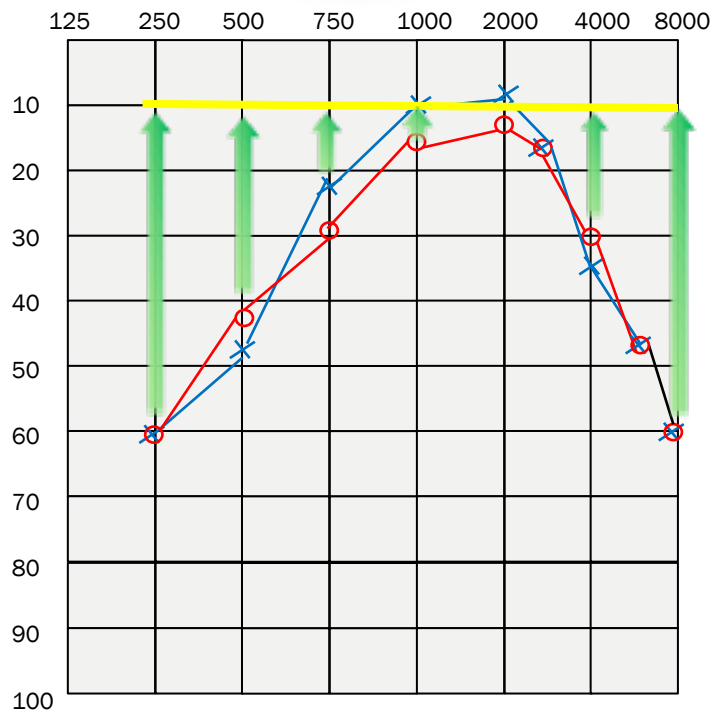
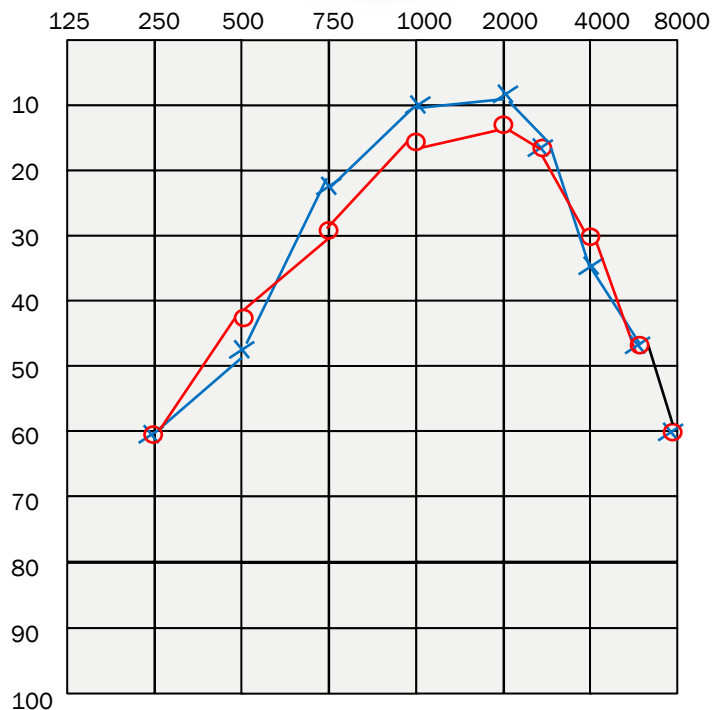
# TAYLOR-MADE SOUND – Example #3

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Hearing without  
TUNEFORK technology



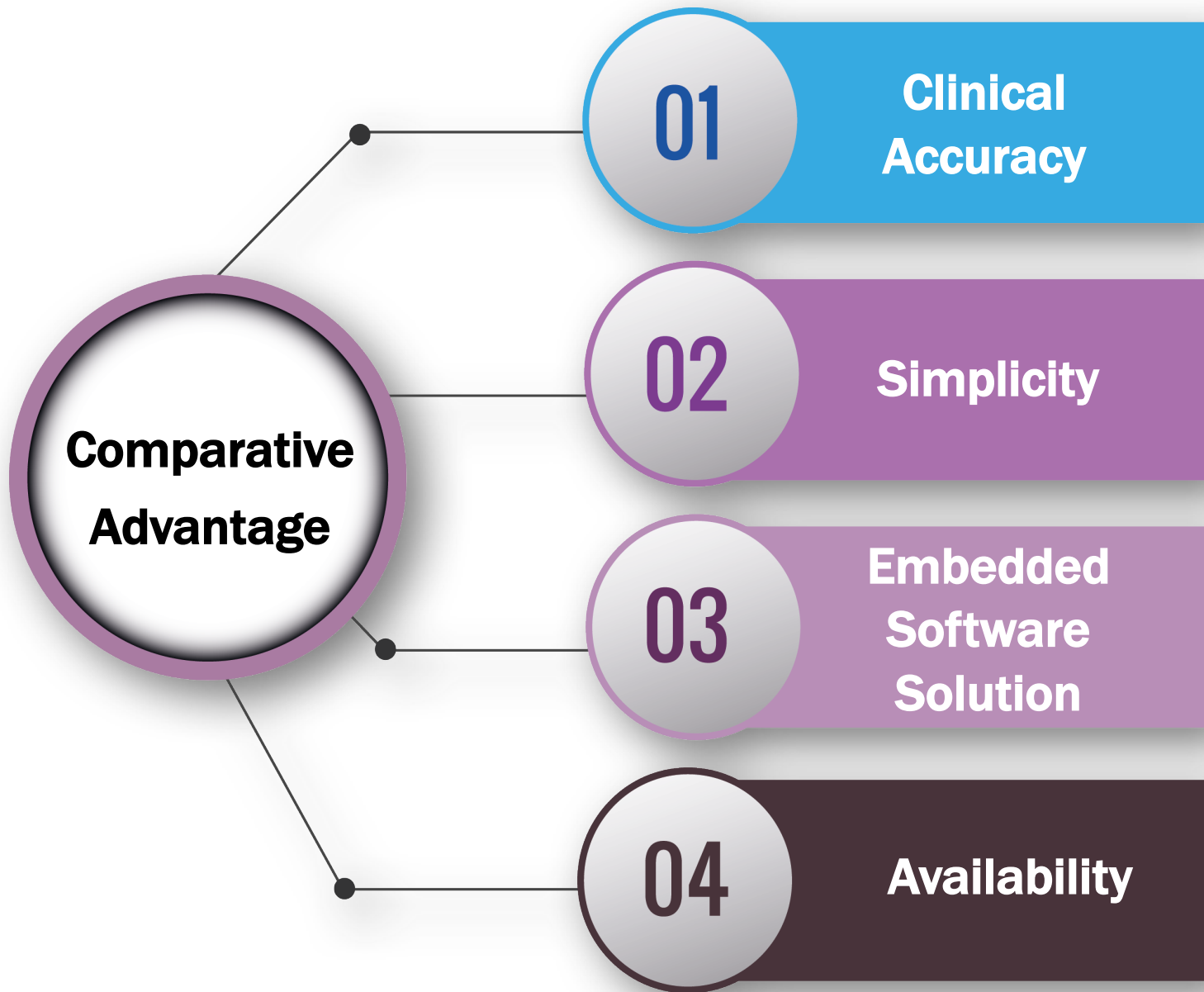
Hearing with  
TUNEFORK technology



- User #3 – “n-shape”. Rare hearing loss profile.

# COMPARATIVE ADVANTAGE

RAZ



# Equipment Distribution Programs and Educating Consumers Regarding Alternatives

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RAZ

- When state equipment distribution programs certify consumers for Relay service, they should educate consumers regarding alternatives such as audio-personalization apps.
- Education should include the names of available audio-personalization apps, how they can be installed and advantages of such apps over Relay service.

# Trial with the Virginia DDHoH

RAZ

- The trial has two main objectives:
  - Proof of concept.
  - To validate that audio-personalization apps for mobile devices such as TuneFork are an alternative to relay service.
- Trial will be conducted with cooperation of RAZ Mobility, TuneFork, and the State of Virginia Department for the Deaf and Hard of Hearing.
- Trial is self-funded by RAZ Mobility and TuneFork.

# FCC Should Create Fund to Support Trials of New Advanced Technology Solutions

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RAZ

- Fund trials for new technology that reduces pressure on TRS fund.
- Trials can be conducted with the co-operation of State Equipment Distribution Programs.
- Trials would accelerate adoption of new solutions by State Equipment Distribution Programs and consumers.
- Suggested annual budget for a period three years:
  - up to \$500,000.

**Thank you.**



**Empowering people to overcome their challenges  
by providing pioneering mobile assistive  
technology and services.**

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