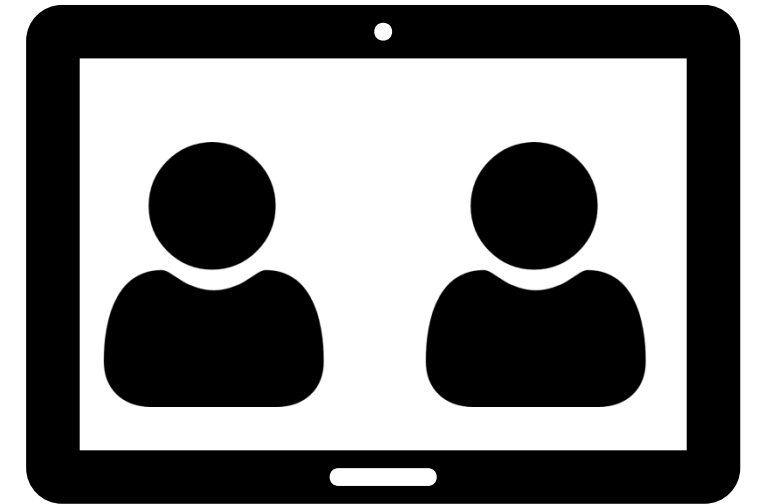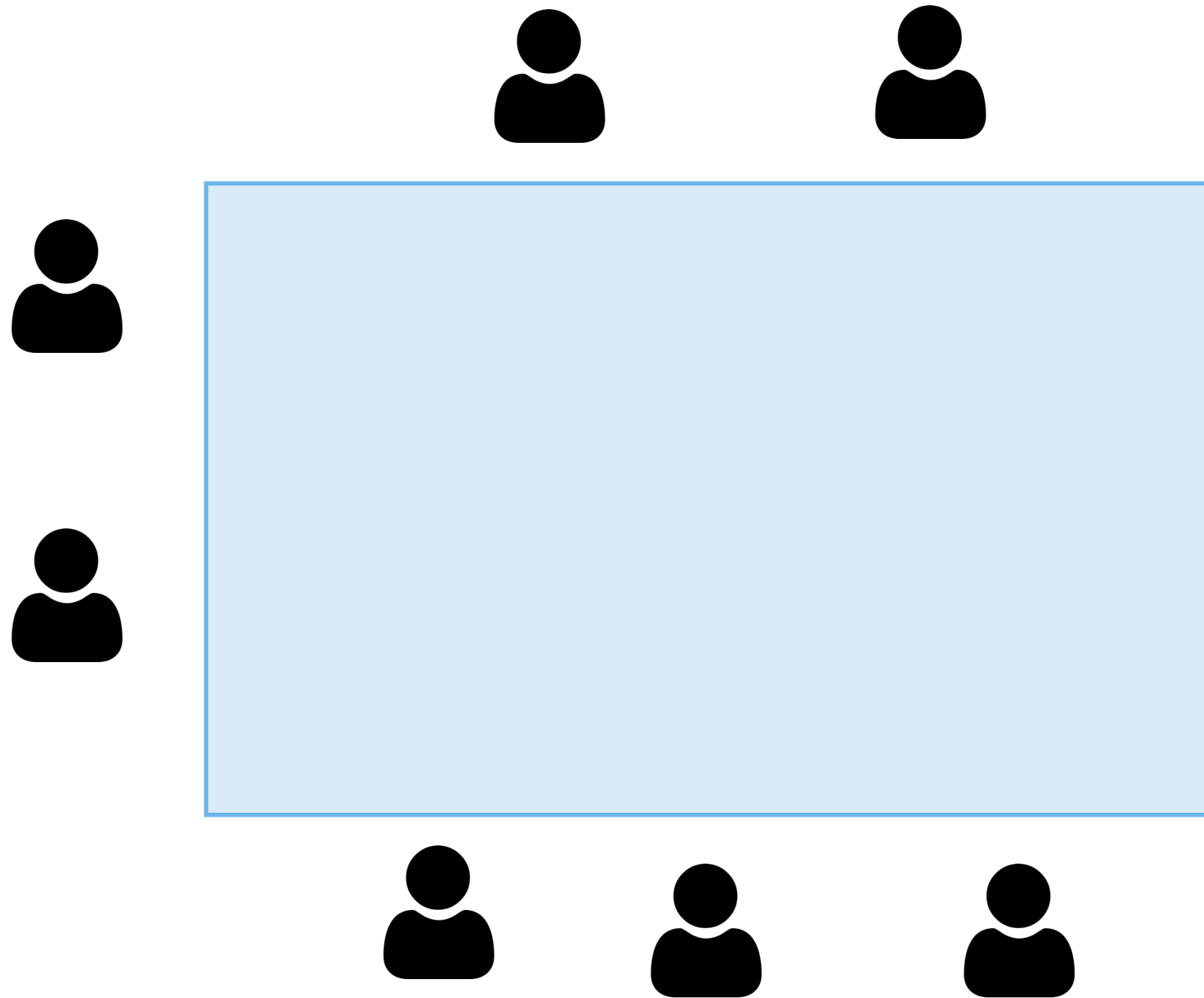# Leveraging Distributed Microphones for Enhanced Speech Separation

Stijn Kindt
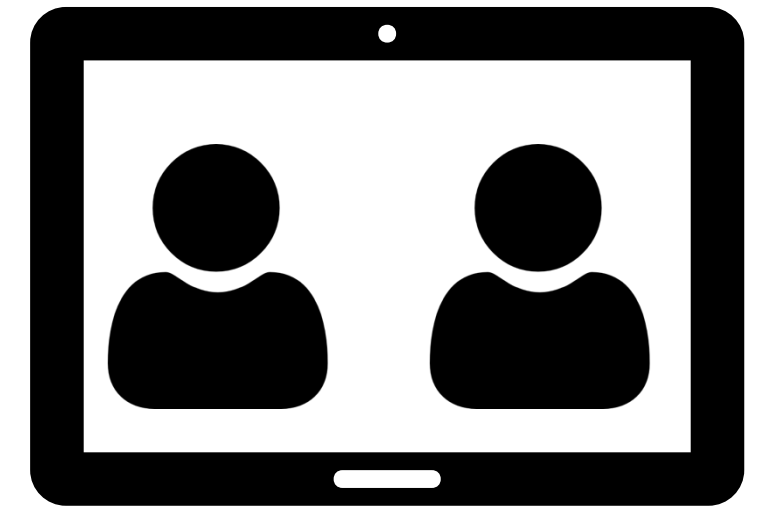
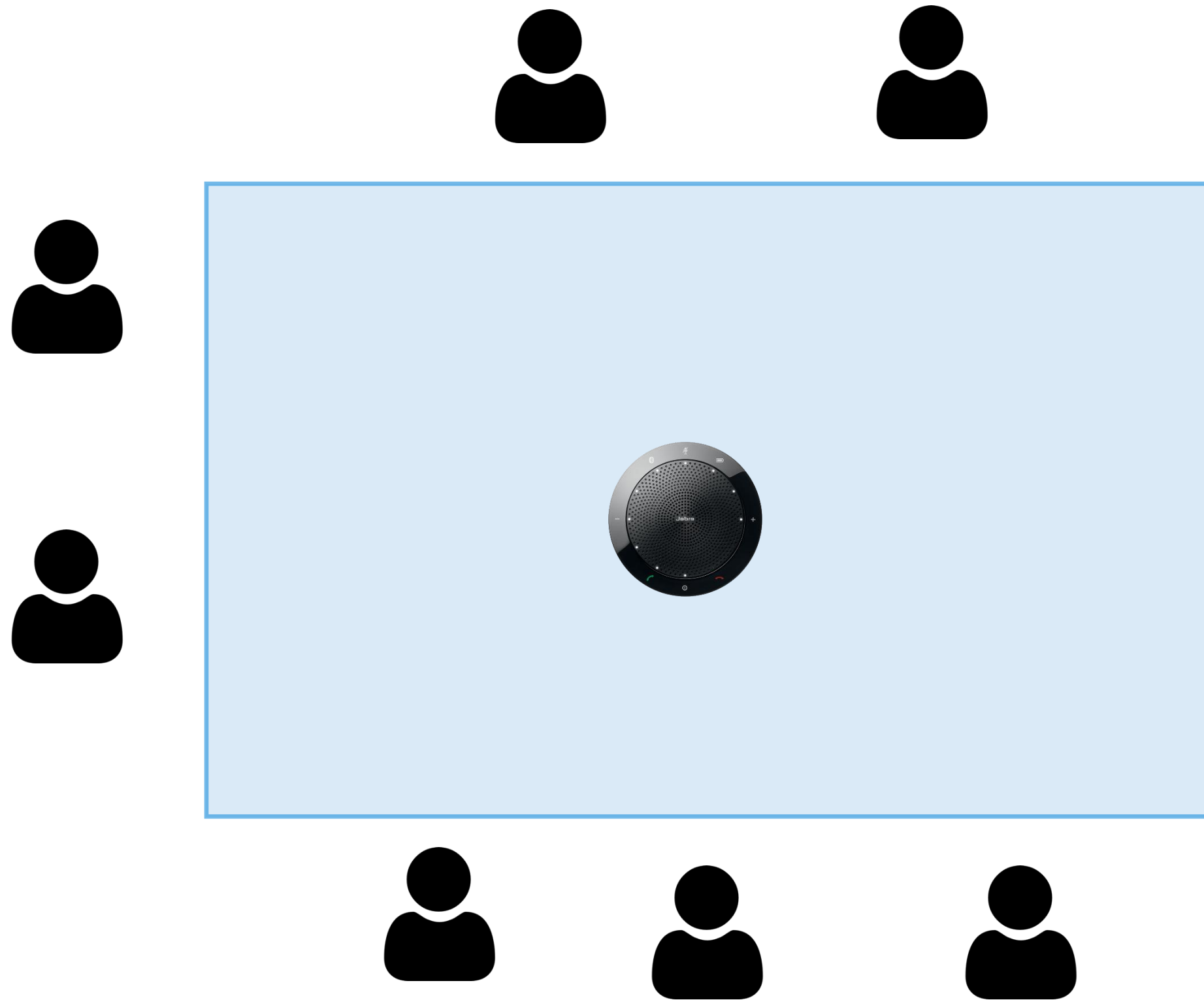GHENT UNIVERSITY

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Setting

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Setting
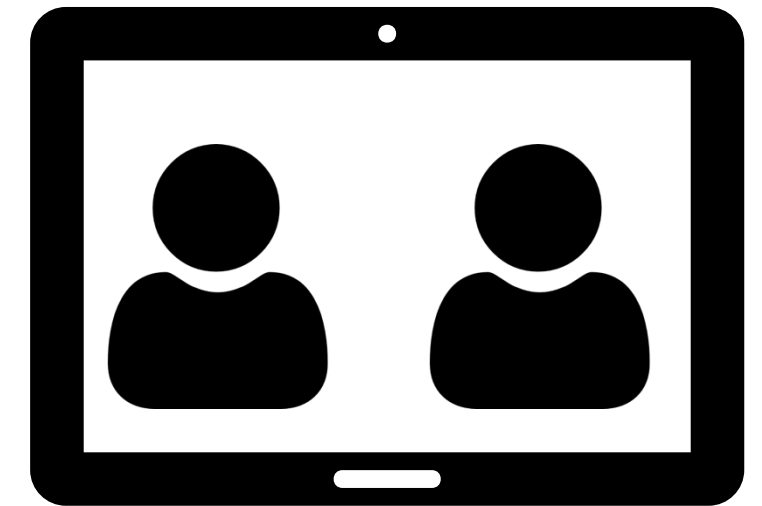
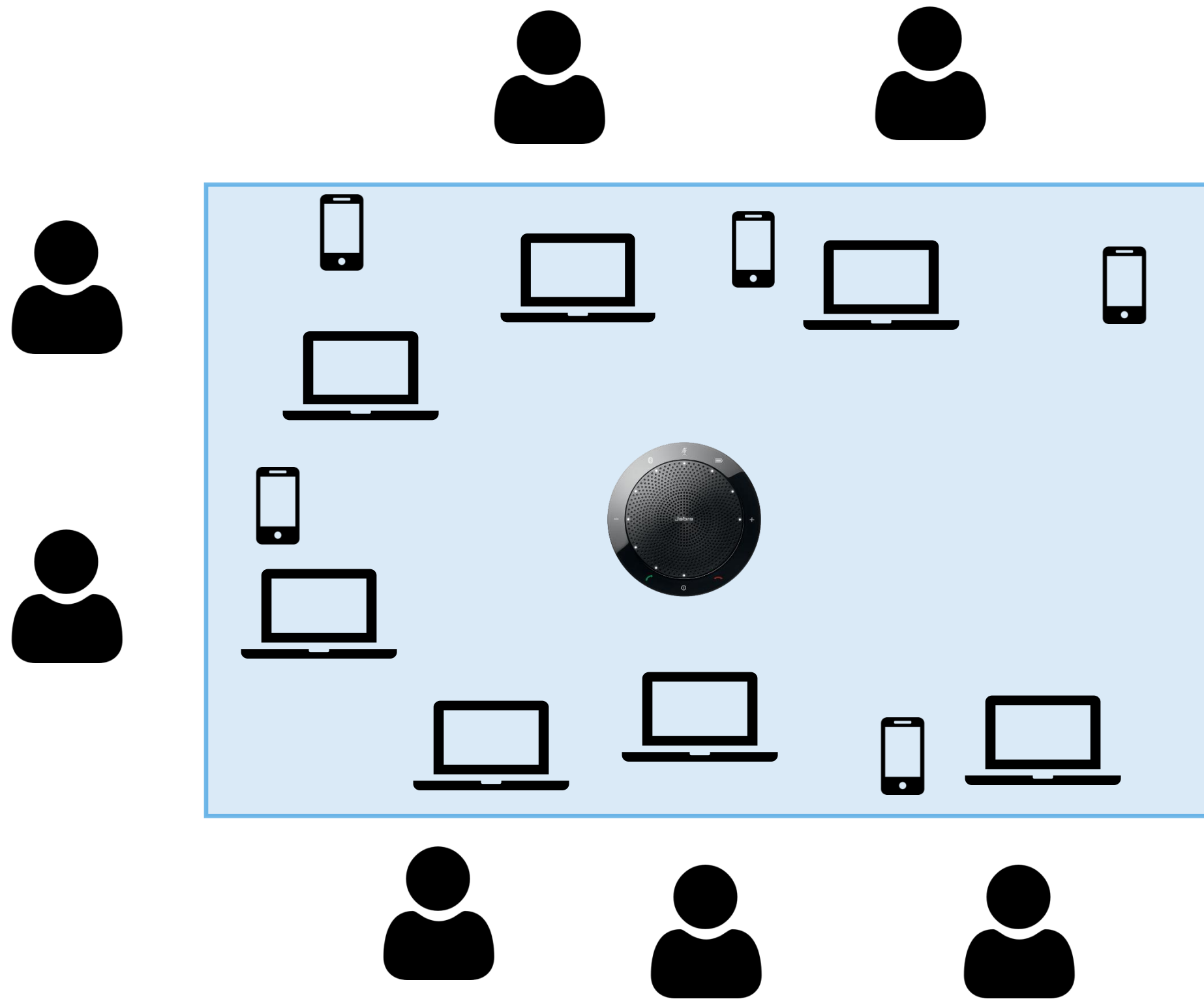# Array Agnostics
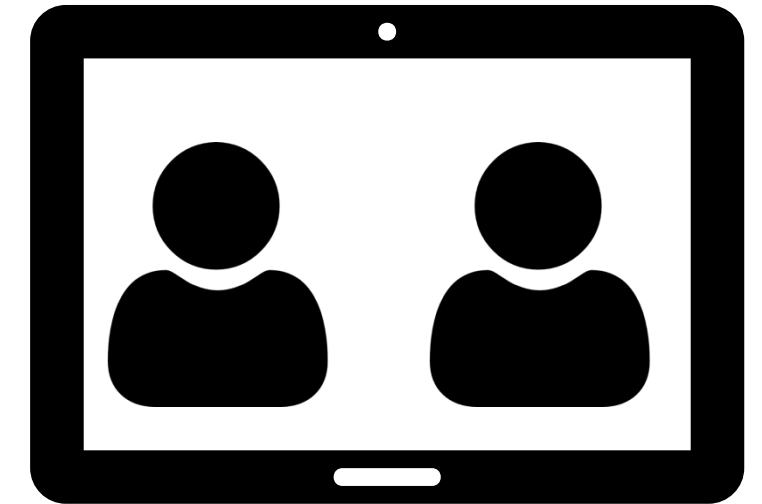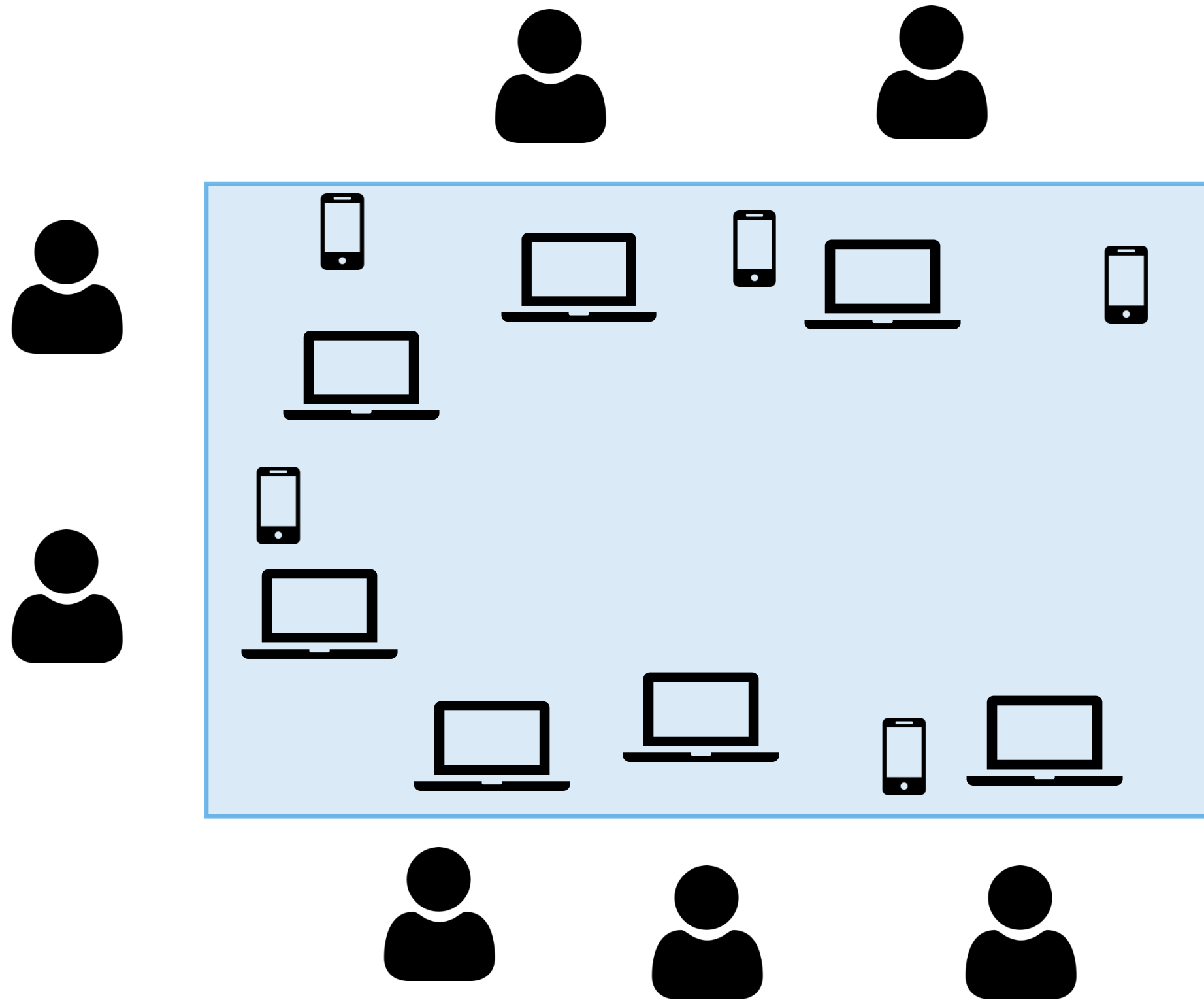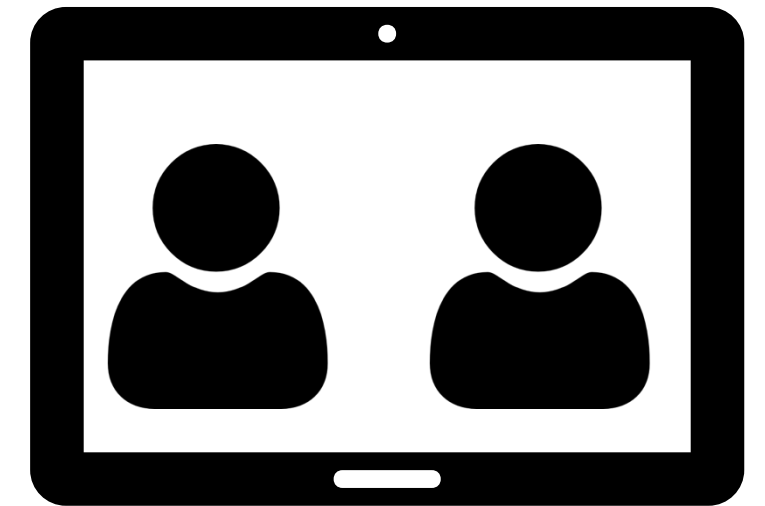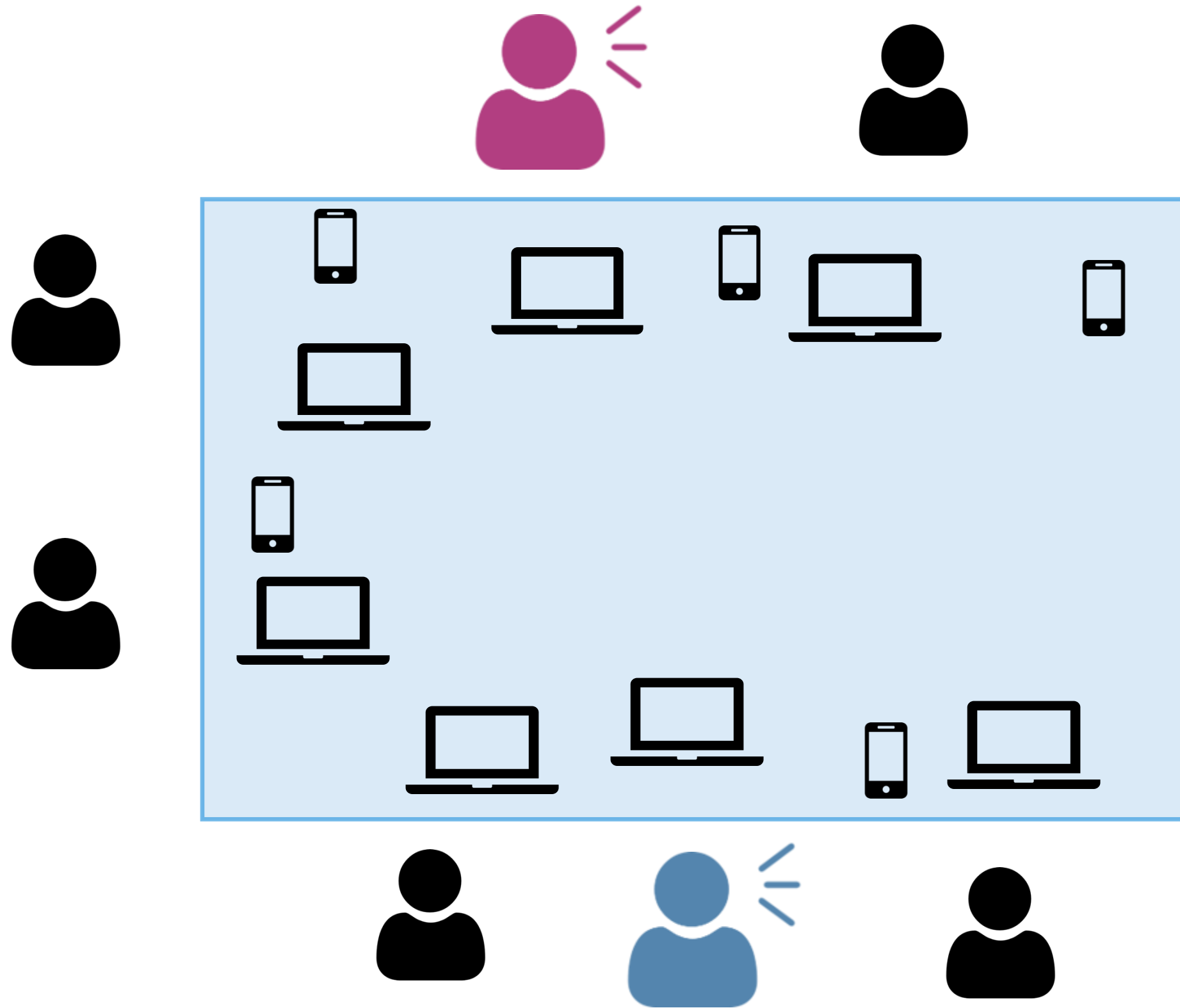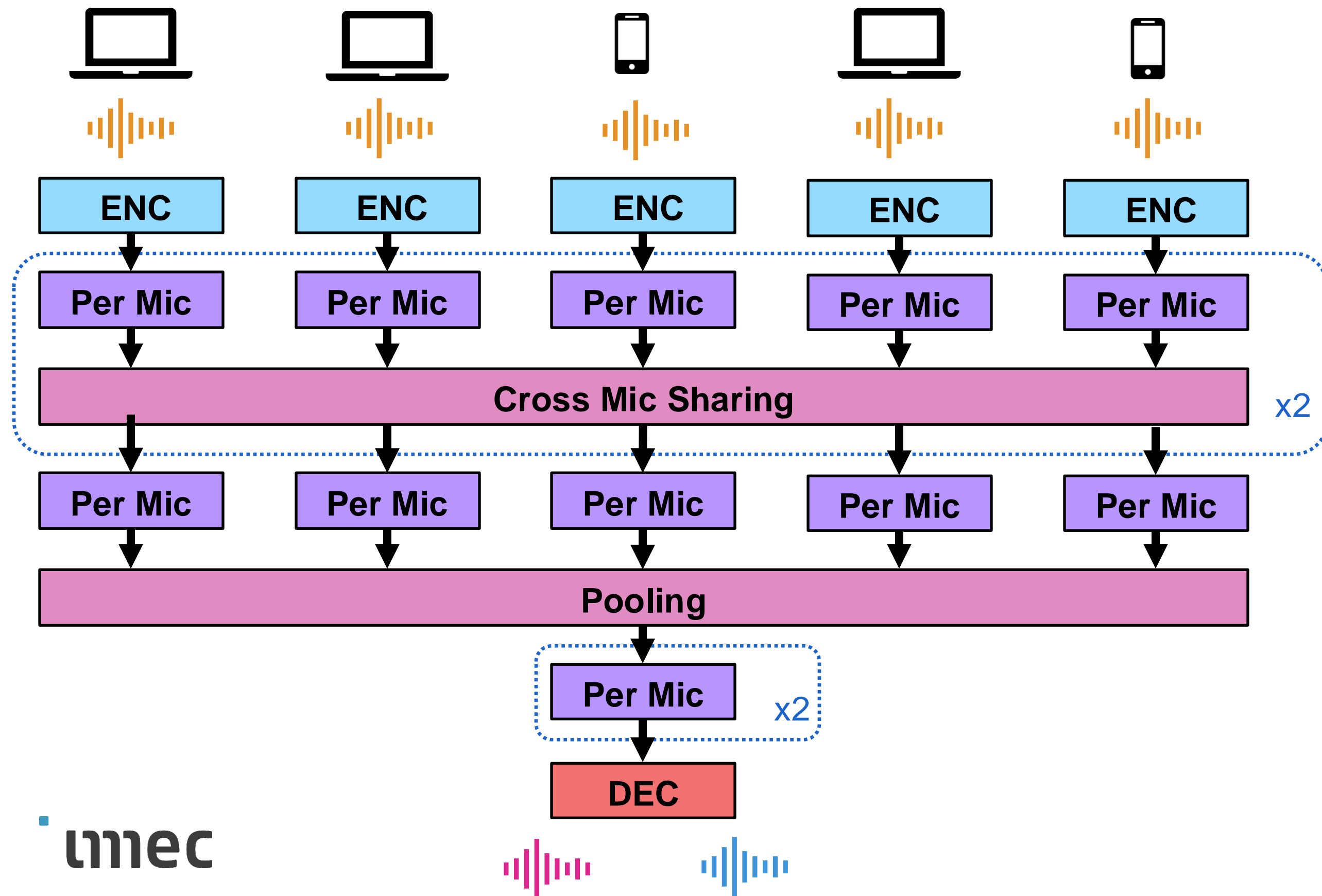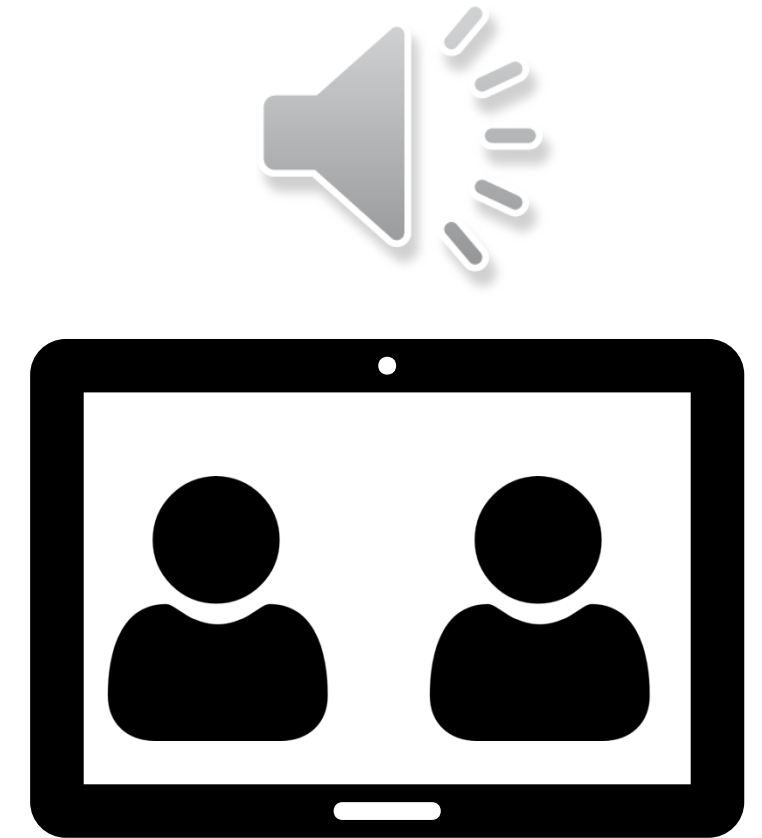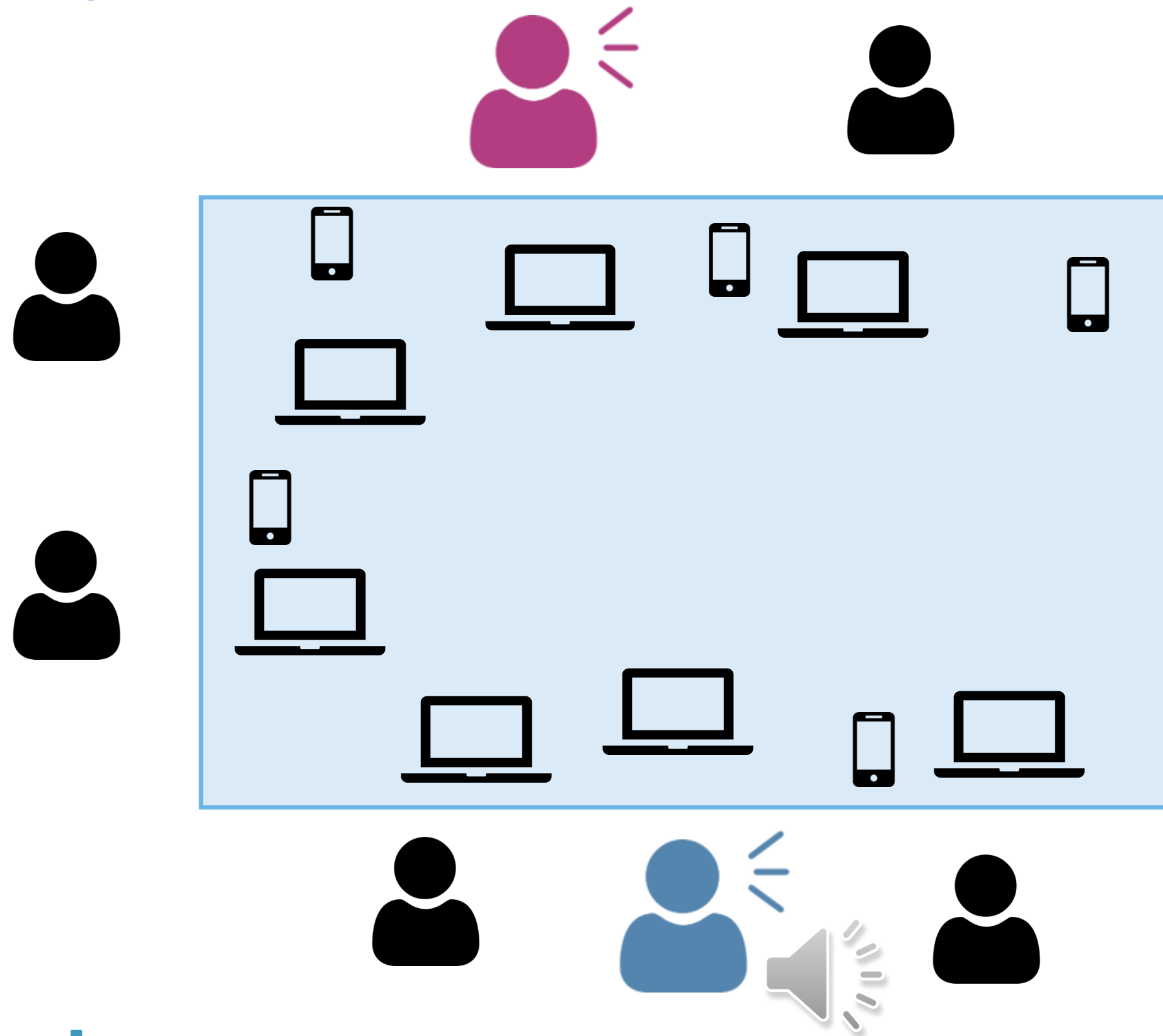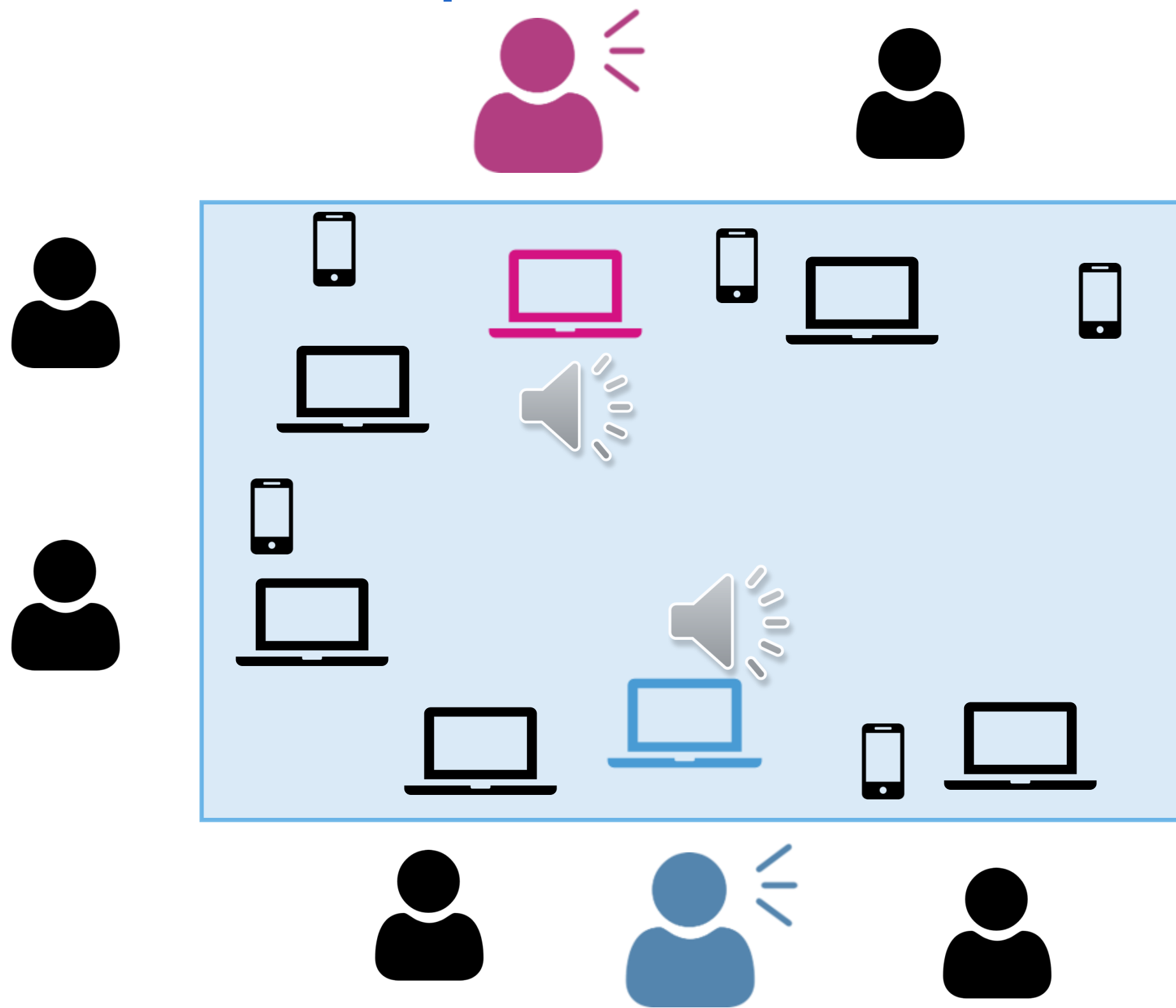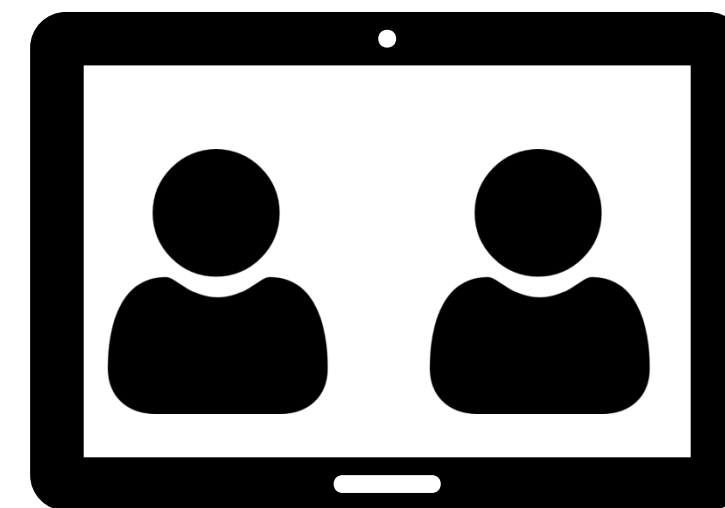
Array Agnostics

Array Agnostic DNNs

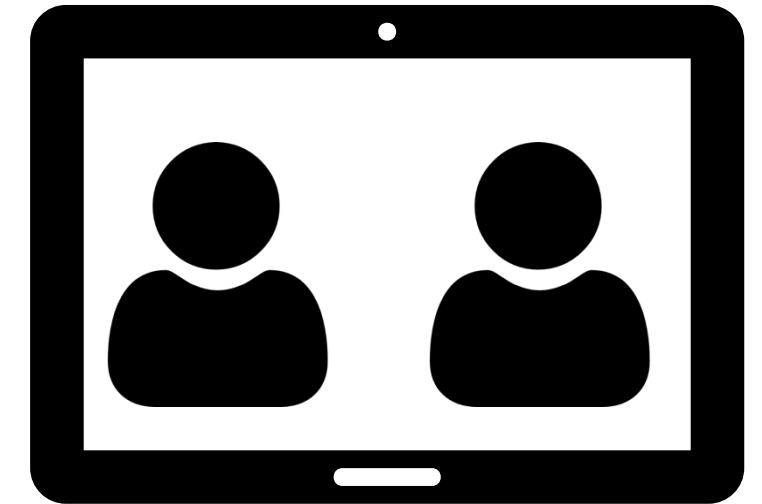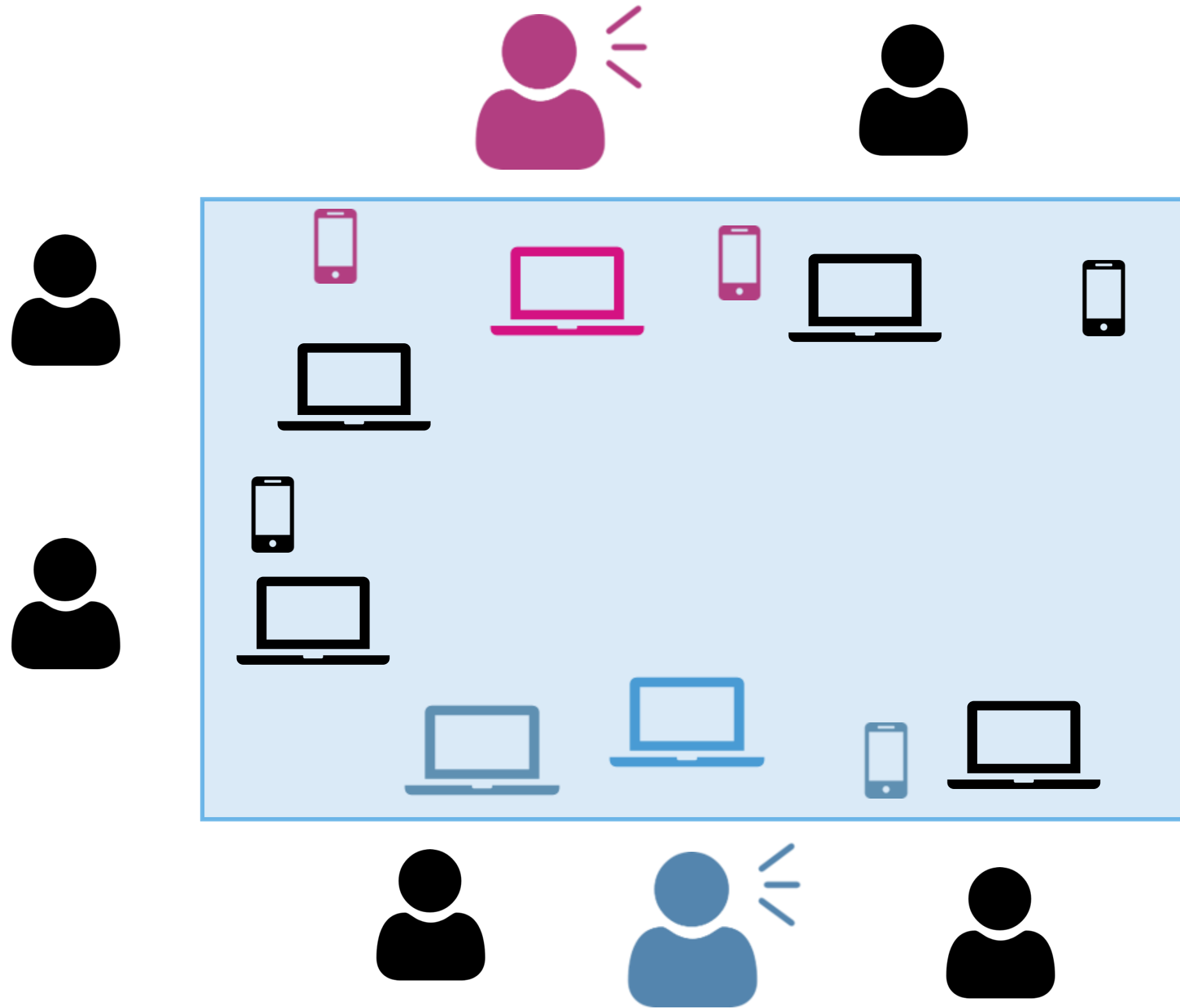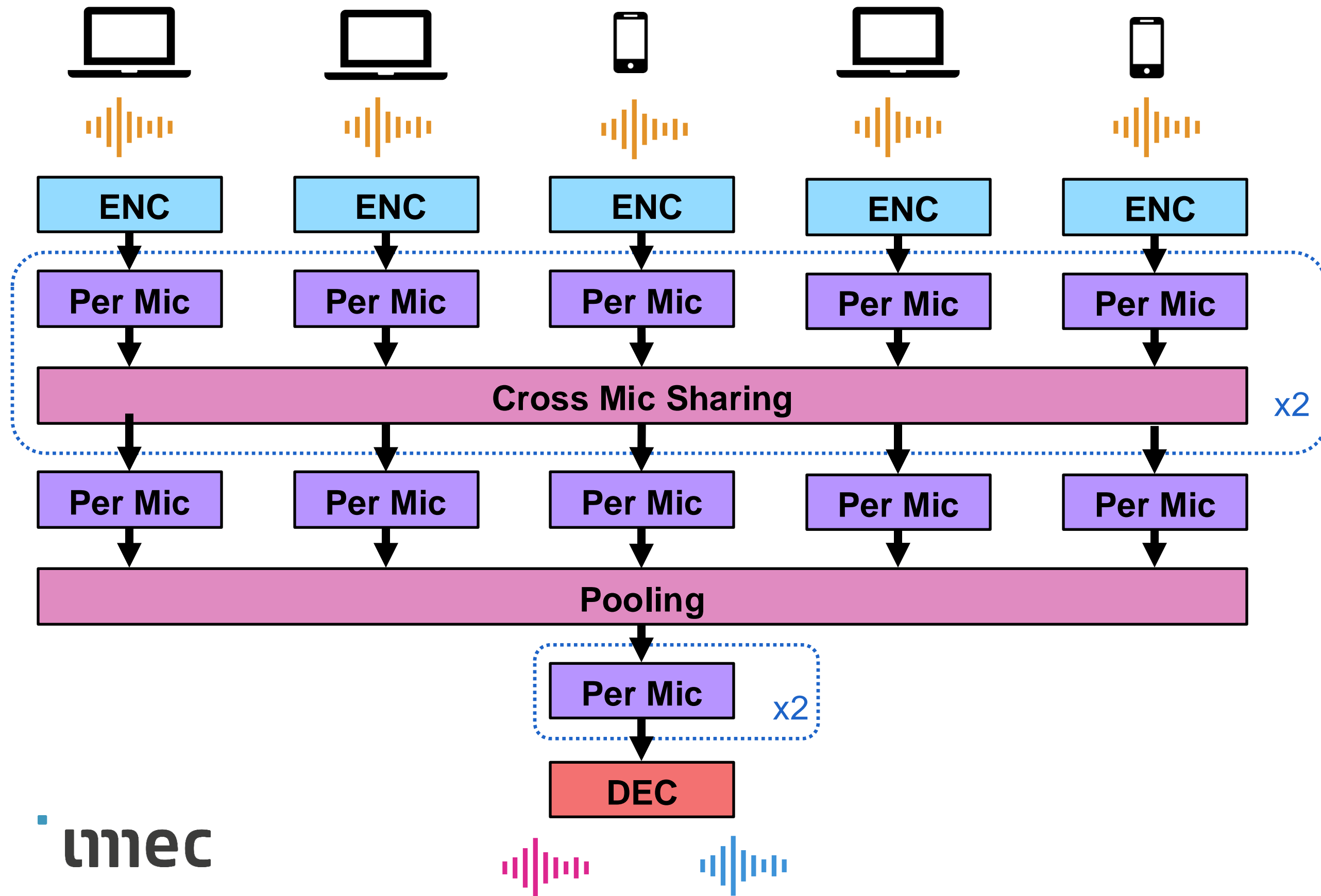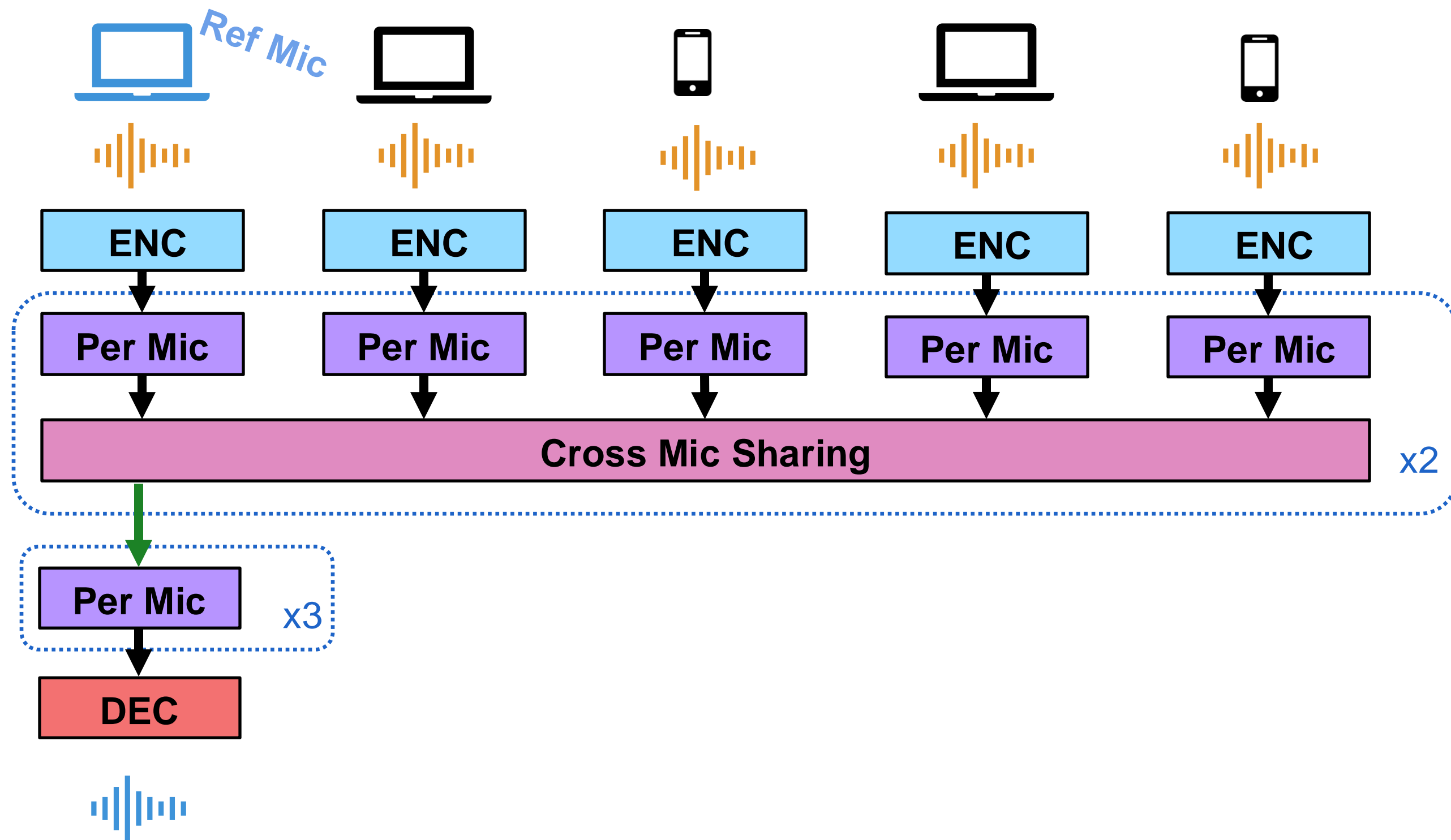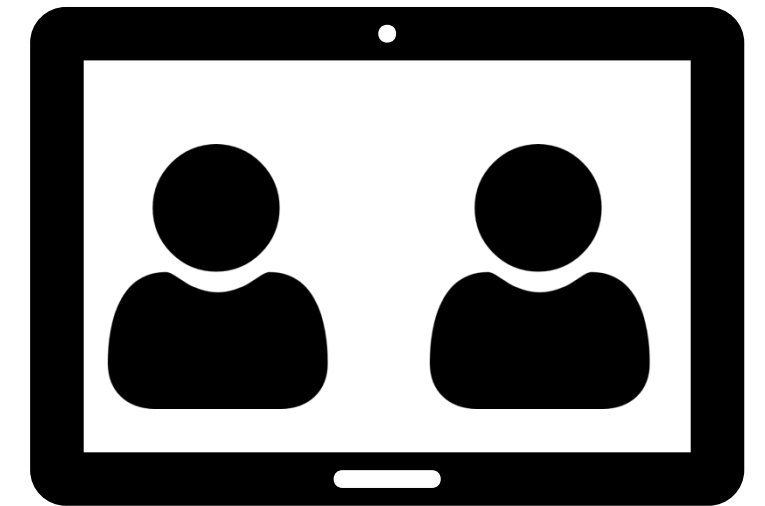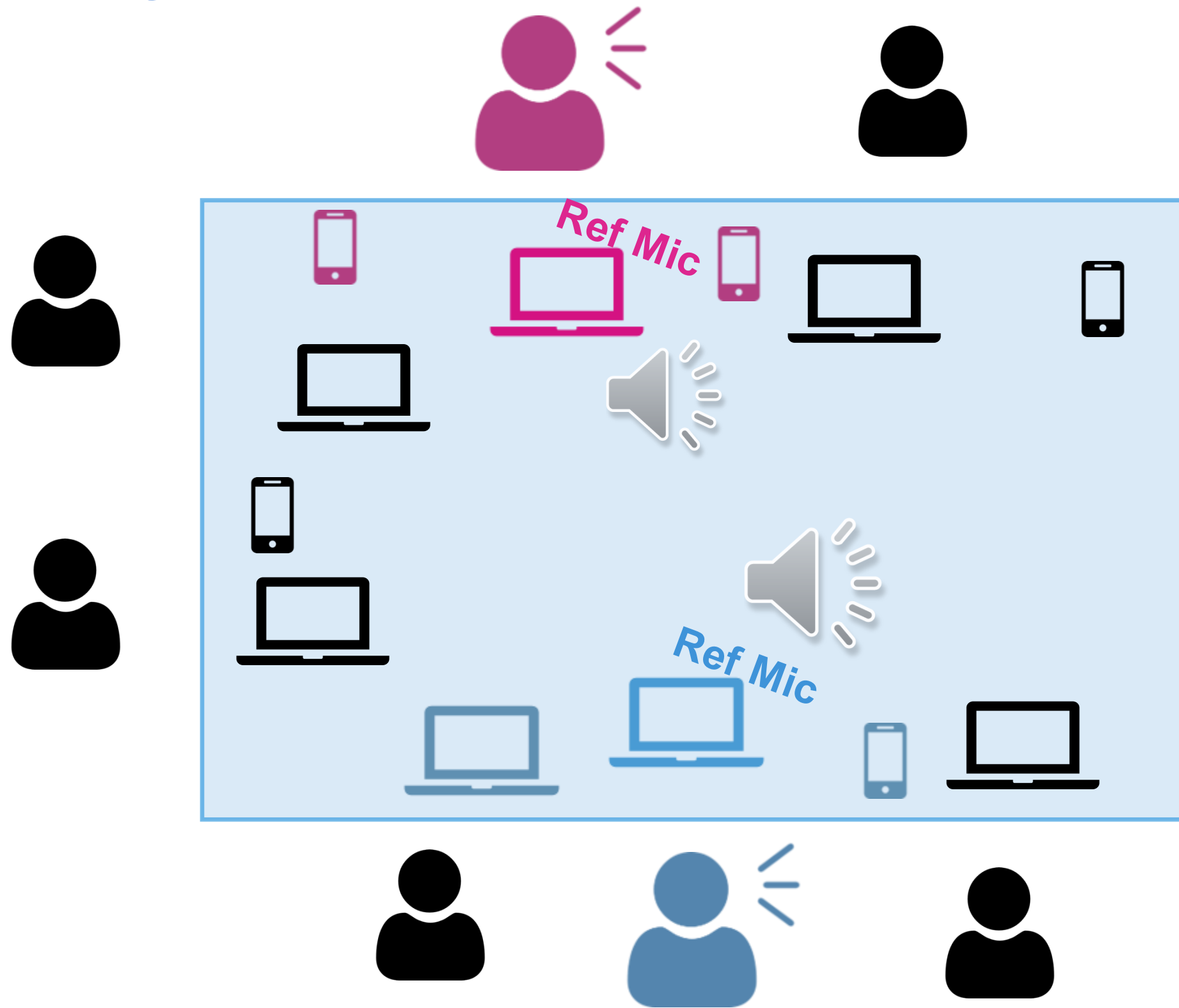# Array Agnostics

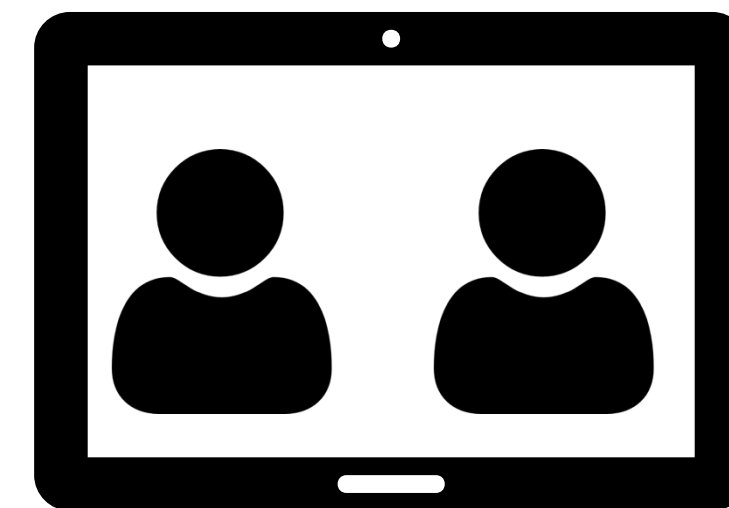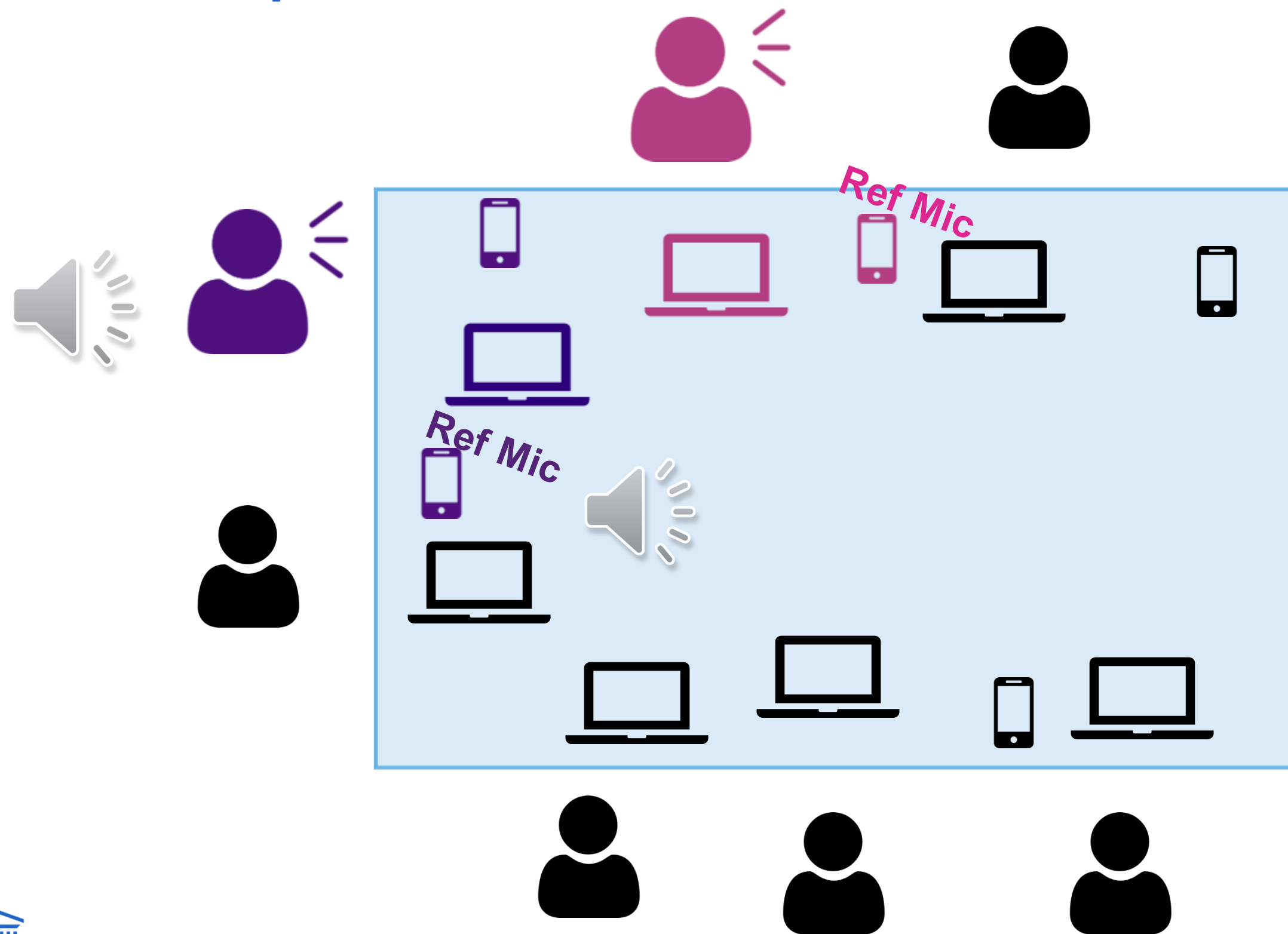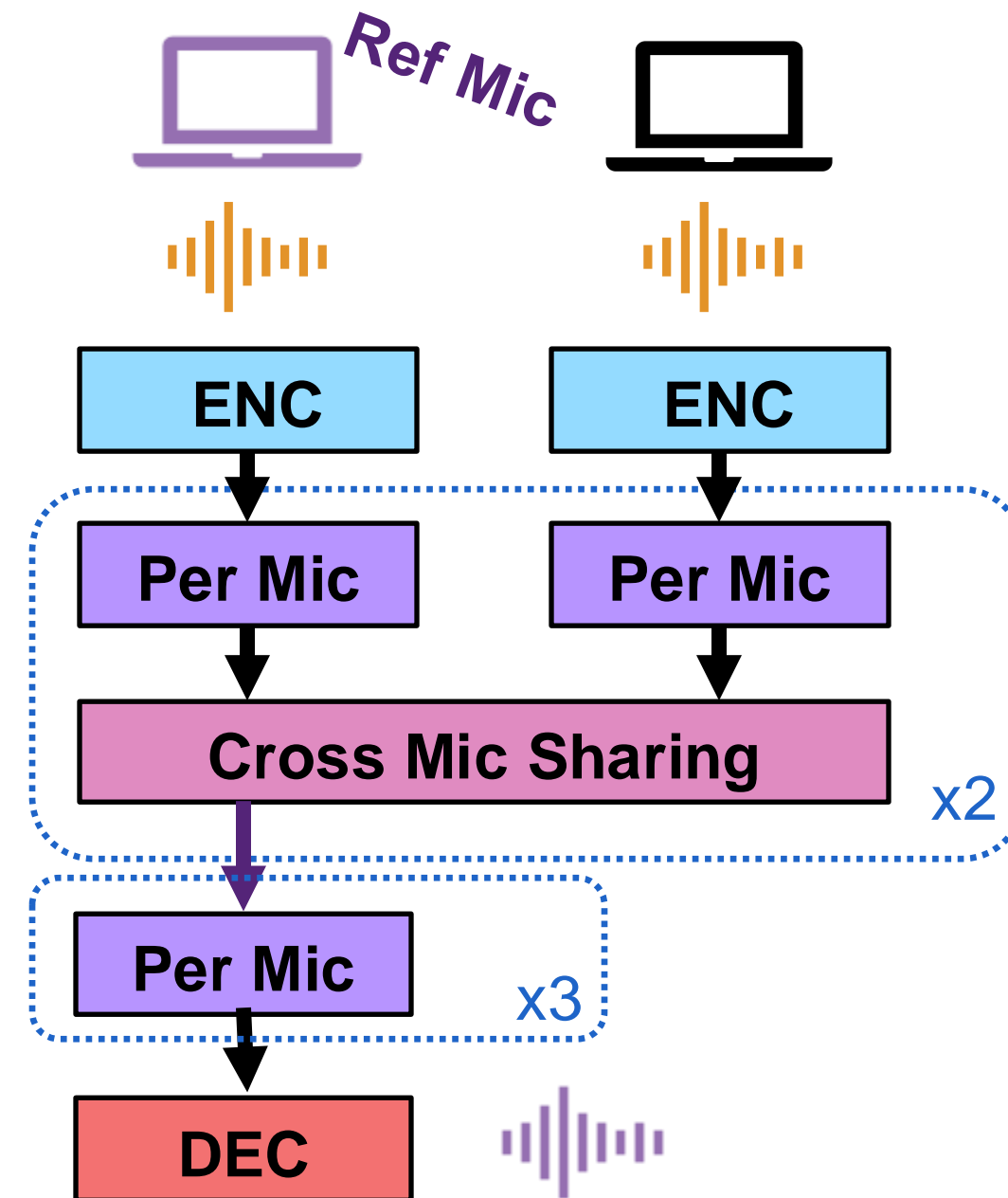# Reference Microphone

Clustering

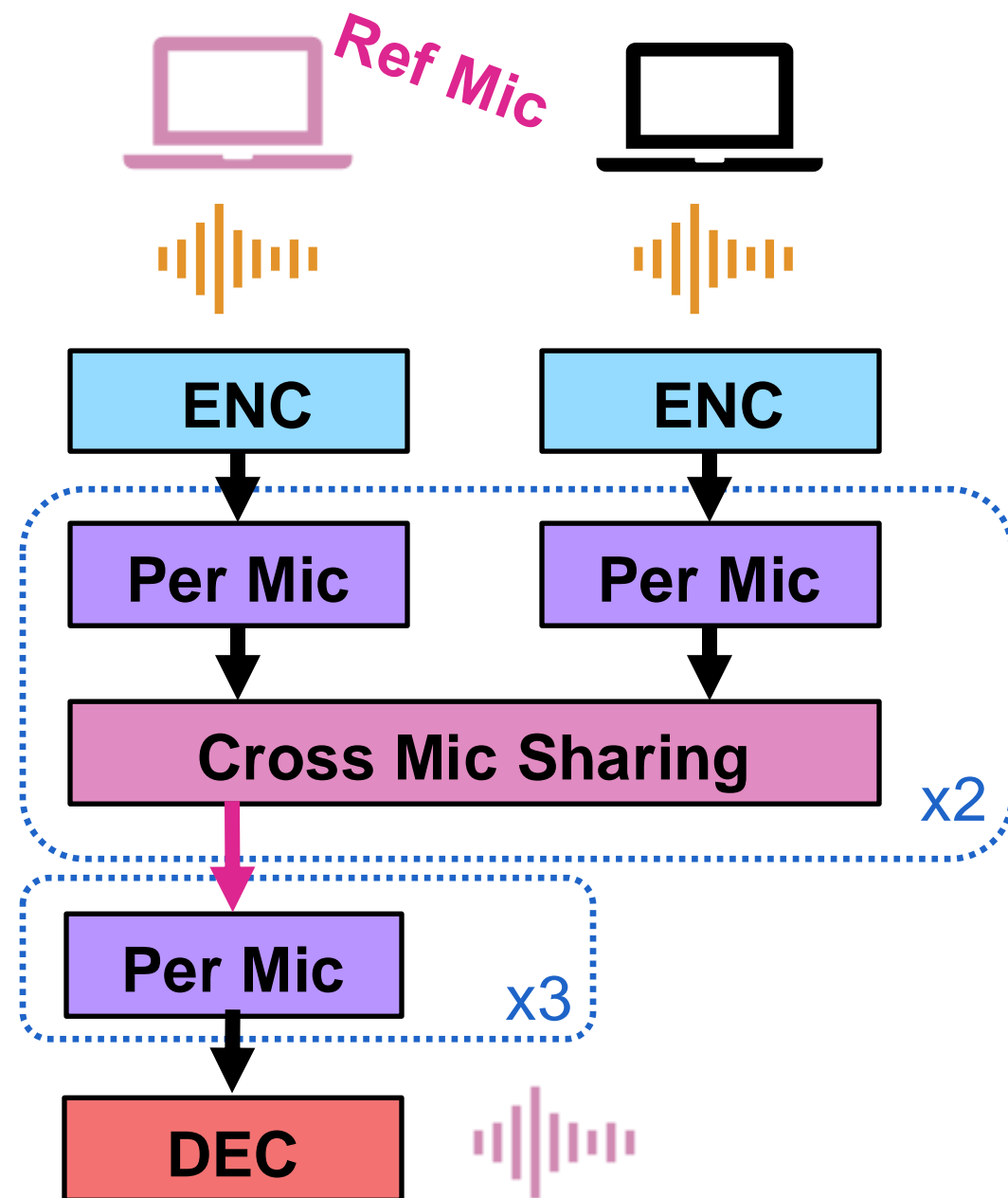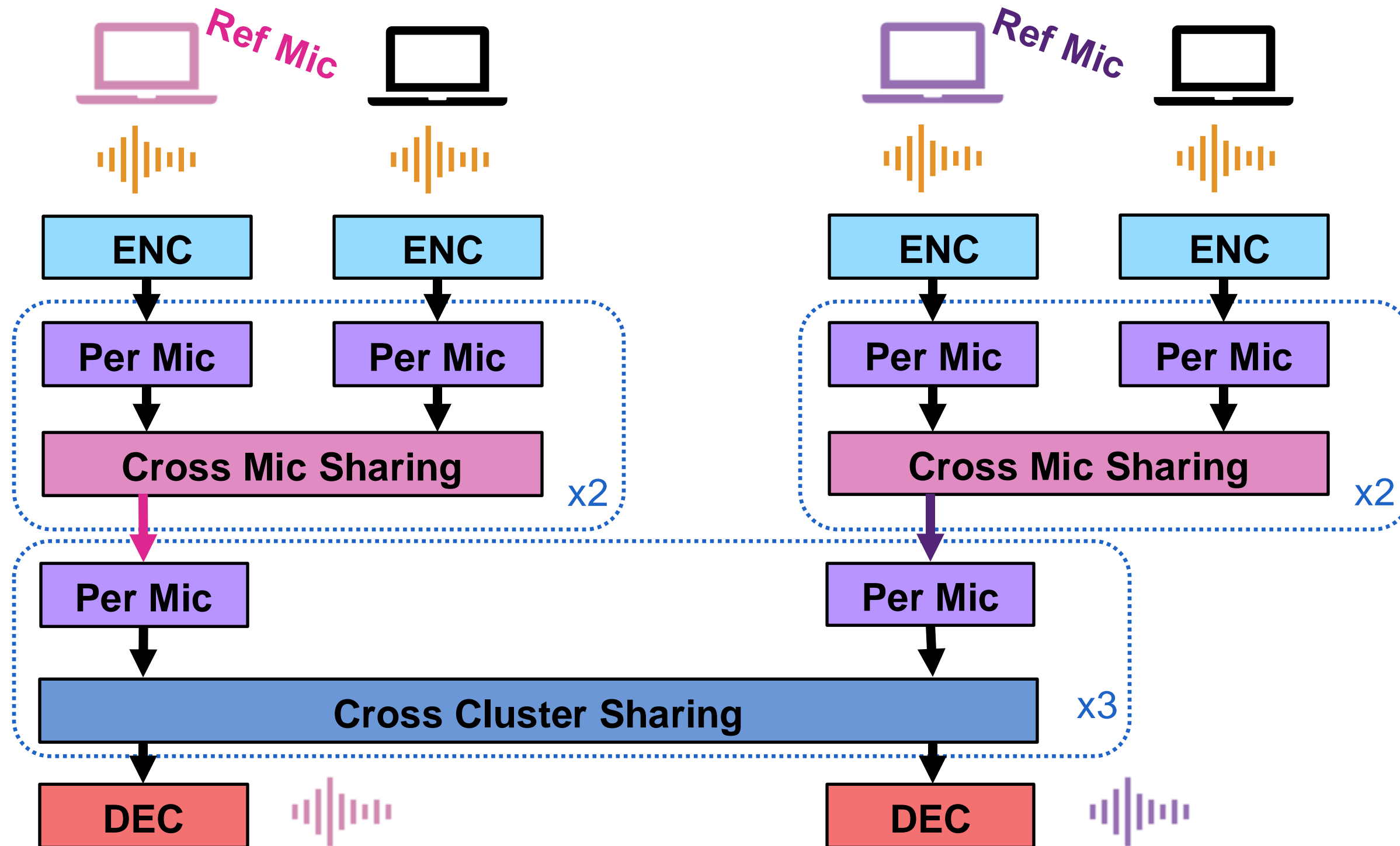# General Array Agnostic DNNs

Ref Mic Promotion

Clustering

Close Speakers
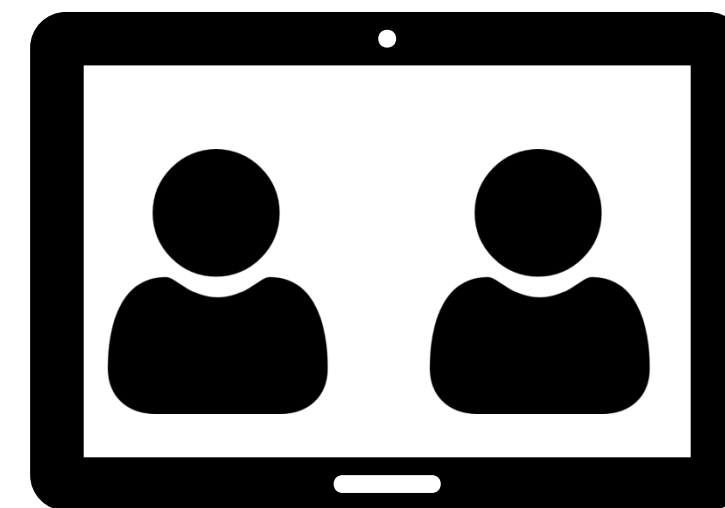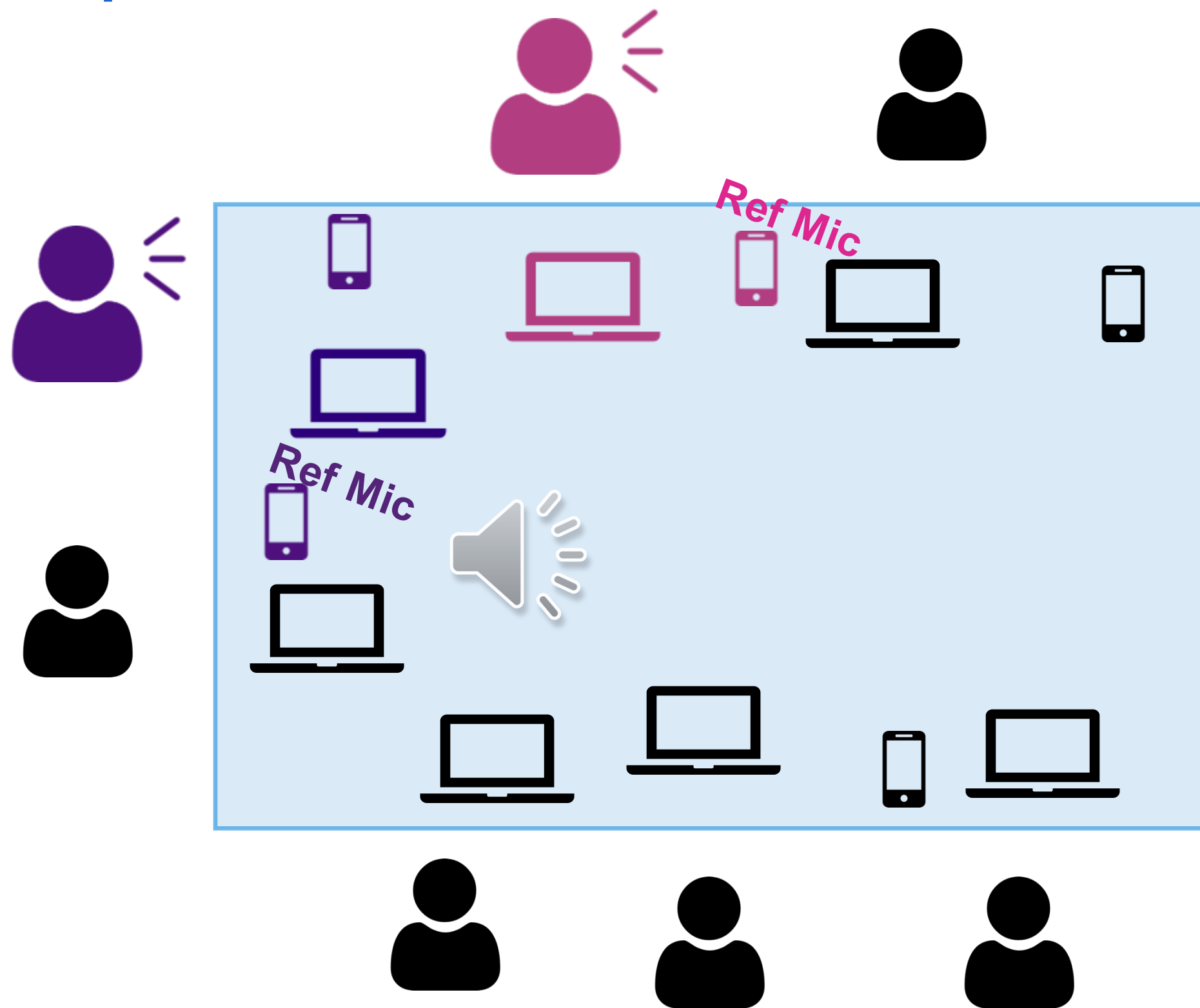

Ref Mic

Ref Mic

Cluster Informed DNN

Cross Cluster Sharing

Close Speakers

Ref Mic

Ref Mic

What is Next?

- Wireless Transmission

  - Encoded Audio

  - Clock asynchronicity

- Source and Microphone Directivity

- Latency, Complexity

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Key takeaways

- Clustering is Crucial in Distributed microphone setups
- Infusing DNNs with underlying structure of the data is beneficial

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