

# The Sixteenth Annual Interactive Audio Conference

## PROJECT BAR-B-Q 2011



### Group Report: Creating Mobile Audio Architectures that Support Flexibility and Differentiation

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## The Problem

The mobile market is new and differentiation is needed to succeed in this marketplace. If software is the same then differentiation must be achieved through the hardware. Differentiation and flexibility are key in ensuring the best possible audio solutions can be achieved. Small form factors make this difficult, as do the slow cycle time of chipset refreshes and lack of communication between stakeholders (codec, OS developers, etc.)

## A brief statement of the group's solution to this problem

Ensure that influencers and decision makers in several companies/technologies who do not necessarily play well together have a neutral, non-threatening forum (Project BBQ?) in which to agree on a flexible framework (as opposed to a standard implementation) for mobile audio design.

## Expanded problem statement

- Volume (not loud enough (skype app – polycom))
- Echo suppression, noise cancelation
- Speaker protection
- Spatialization (Separation envelopment and expanding beyond 2 channel)
- Internal architecture problems
  - Form factor (comes down to form factor – not always cost)
- Earpods – ear-worn independent wireless devices for rendering audio
  - Why is Bluetooth headset market dying?
- Large chipset developers update designs infrequently
- Standards can stifle agility in how audio is done

## Expanded solution description

- Better balancing between codec and application processor
- Ability for driver to push code downstream
- More flexibility in chips to allow more differentiation
- Echo cancelation can happen after all signal processing as close to connections as possible
- Invite principal parties to an informal, non-threatening, casual environment, - next year's BBQ to begin to create a framework (not a standard)
- Codec could be all digital
- Invite principals to BBQ next year

### **Principal invitees:**

- Qualcomm, nvidia, Intel, AMD, TI
- Google
- IDT
- Apple
- Cirrus
- RealTek
- Conexant
- Wolfson
- CEVA
- AKM
- Lab126
- Dolby
- DTS
- SRS