

Four questions, in order. Answer them and the codec choice usually makes itself.

## The one rule

Decodability beats fidelity. A codec that plays everywhere beats one that sounds better but does not.

## The four questions, in order

### 1. Where does the audio play?

List every endpoint: browsers, phones, smart TVs, set-top boxes. The oldest device sets your baseline.

*The decodability gate - this one overrides fidelity.*

### 2. Real-time or pre-recorded?

A live call needs tiny codec latency; a pre-recorded file does not care about it at all.

*Splits the path into real-time vs streaming.*

### 3. How many channels?

Mono, stereo, 5.1 surround, or object-based Atmos. Surround narrows the field to a few codecs.

*Most multichannel codecs are licensed.*

### 4. What is the licensing budget?

Royalty-free, or patent-pool fees per device/stream. At ten million units this can flip the answer.

*Ask in week one, not in legal review.*

## The answers, by use case

<b>Video call / conferencing</b>	Opus (network falls back to G.711 / EVS).
<b>Video-on-demand, stereo</b>	AAC-LC baseline + xHE-AAC for adaptive mobile.
<b>Surround / Dolby Atmos</b>	E-AC-3 for streaming; AC-4 / MPEG-H for broadcast.
<b>Bluetooth last hop</b>	LC3 - better quality at half SBC's bitrate.
<b>Perfect master / music</b>	FLAC (open) or ALAC (Apple).

### Licensing in one line

Royalty-free: Opus, FLAC, LC3 core. Patent pool (Via LA): AAC family, MPEG-H.

Licensed: AC-3, E-AC-3, AC-4 (Dolby). At ten million units this column can change your choice.