No App, No Setup: Amazon Transcribe in a Box

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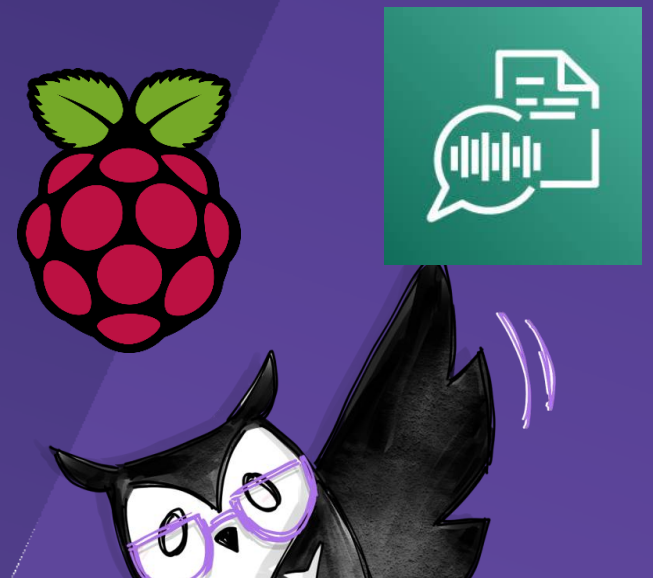


How this started - The challenge

- Live presentations often exclude people due to language or hearing barriers
- Existing solutions are expensive or complicated
- **We wanted**: Something you just plug in between your laptop and screen

Our Solution

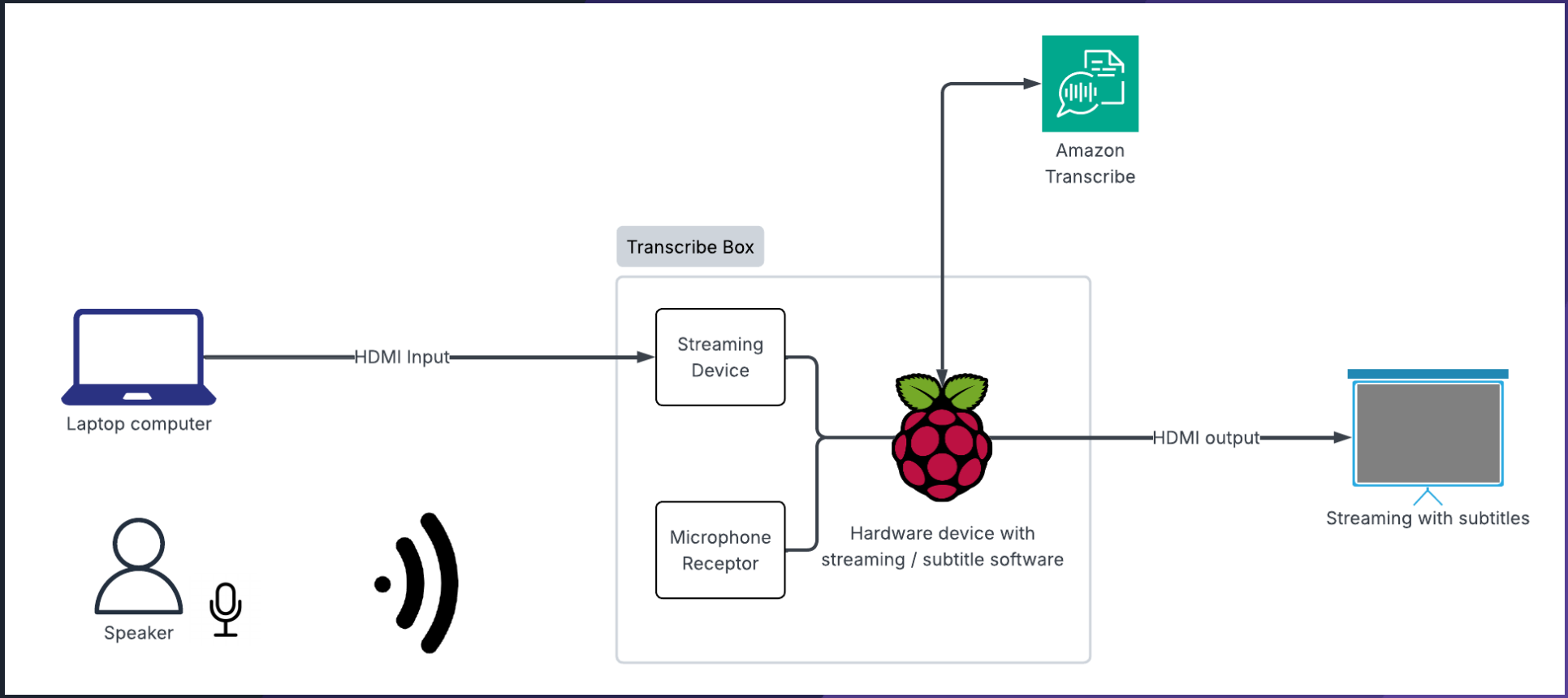
So we developed something!

Our Solution – The concept

- A box that captures video + audio.
- It adds live subtitles of the transcribed Audio.
- No software or configuration needed on the source computer, just plug and play.

How it looks

How it works


Amazon
Transcribe
Transcribe Box
Laptop computer
HDMI Input
Streaming
Device
Microphone
Receptor
Hardware device with
streaming / subtitle software
HDMI output
Streaming with subtitles
Speaker

Building It - The Fun Parts

Little coding experience but the idea can be worked on:

- Vibe coding gets you there
- Working version in a few days
- But some details needed to be worked on…

Building It – Some initial problems

Problems that needed to be solved:

- Concatenating text fragments into readable sentences
- Preventing subtitles overflow the screen
- Hardware compatibility (screen resolutions)

AWS Transcribe in Action

Why AWS Transcribe:

- Streaming API perfect for real-time
- High accuracy, handles accents well
- No model training needed

How we use it:

- Stream audio chunks continuously
- Receive text back in real-time
- Format and display on video
- Partial results for real-time transcription

```
try {
    // Base transcription parameters
    const baseParams = {
        MediaSampleRateHertz: TRANSCRIBE_RATE,
        MediaEncoding: 'pcm',
        EnablePartialResultsStabilization: true,
        PartialResultsStability: 'medium'
    };
```

Current Status and Next Steps

What works now:

- Real-time English transcription ✅
- Clean subtitle overlay ✅
- Stable video passthrough ✅

What's Next – Short term :

- Add Live translation 🕘
- Multi-language support 🕘
- Multiple speaker detection 🕘

What's Next – Long term :

- Plug and Play
- Custom enclosure
- Simple controls (power button + language selector)
- Production-ready hardware

Key Takeways

For builders:

- AWS services let us innovate faster
- Vibe Coding let us prototype fast. But humans still decide what to build and how. 😉

For the community:

- Accessibility tech doesn't have to be expensive
- Combining hardware + cloud opens new possibilities
- Ping us if you want to be part of this project!

Thank you!

Q&A Time

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