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# Separation of Cloud Generated Audio Streams

— Team StratoSplit —

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# Introduction

Sam Cain - Team Lead

Nolan Newman - Architect

Elliot Hull - Recorder

Dallon Jarman - Release Manager



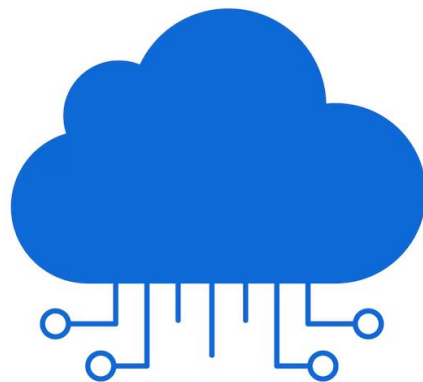
# Problem Statement

- Speaker per channel
- Application is installed locally on the computer
  - Requires access to specific computer
- Complicated User Interface
  - Difficult to use and learn



# Solution Overview

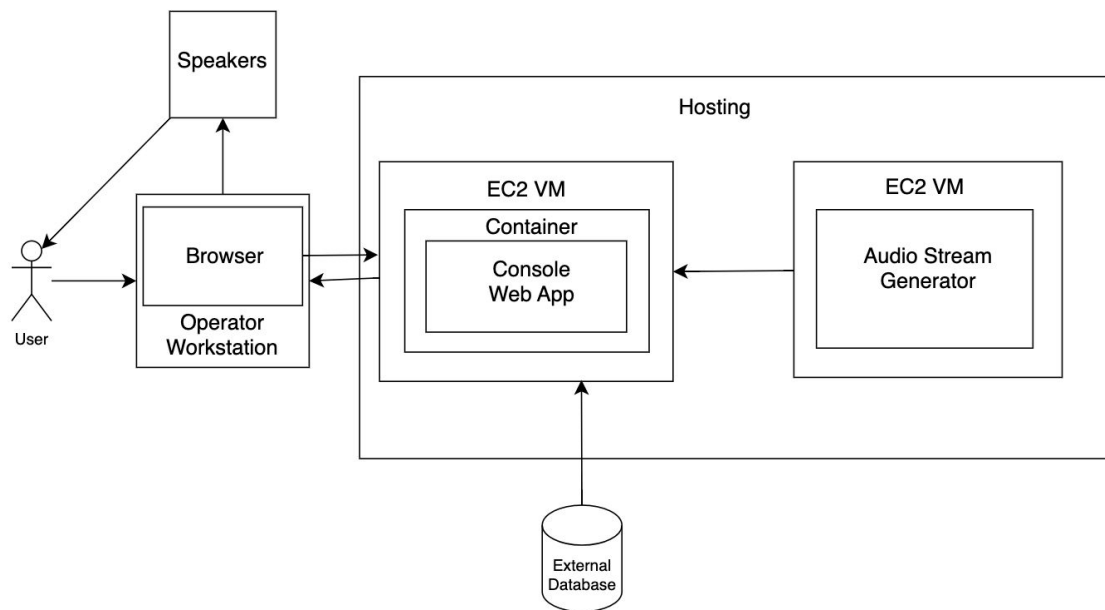
- Real-time 3D audio management
- Zero Trust secure architecture
- Advanced logging and monitoring tools
- Comprehensive test code coverage
- Scalable, responsive design deployment
- Low-latency, high-quality audio streams



# Implementation Overview

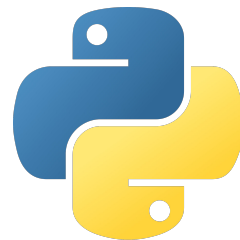
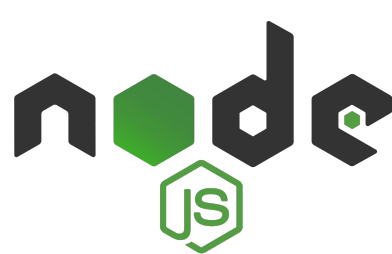
- Spatial Audio
- Zero Trust Access
- Passwordless login
- Multicasting communication
- NoSQL database

# Implementation Overview Cont.



# Implementation Details

- Frontend: Express JavaScript
- Backend: NodeJS, Python
- Authentication: Hanko
- Database: MongoDB
- Cloud Provider: AWS
- Containerization: Docker
- Version Control: Git



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# Challenges and Resolutions

- Spatial Audio
- Passkey authentication
- Playing sound to user's computer
- Multicasting on AWS







# Conclusion

- Current software is inflexible and inefficient
- Our solution will be easier to use and implement
  - Access from anywhere
  - Compatibility with many platforms
  - Easy to maintain and update
  - Security through zero trust
- Low risk through redundancy

