GAUDIO Highlights

GAUDIO LAB is leading the **SPATIAL AUDIO** and **Audio AI** for streaming media, mobile and metaverse, based on its internationally recognized technologies.

- **2014**
  - ADOPTED AS ISO/IEC MPEG-H AUDIO STANDARD
  - Over Qualcomm, Fraunhofer, Orange, and Huawei

- **2017**
  - 'Innovative VR Company of the Year’
  - VR AWARDS

**Top-notch Investors**
- Widely accepted best investors in Korea funded Gaudio Lab
  - SoftBank
  - LB Investment
  - CAPSTONE
  - trueFriend
  - DSAsset
  - SAMSUNG
  - NAVER

**20M Users Everyday**
- Installed on 100M apps/devices world-wide
- 20M DAU (Daily Active Users)

**Monopolize Audio Experts**
- Having 13 talented audio experts (8 Ph.D. and 5 M.S.) is rare in world-wide standard
- Invented 1,200+ patents on audio & standards

- Installed on 100M apps/devices world-wide
- 20M DAU (Daily Active Users)
"SOUND IS HALF THE EXPERIENCE"

Filmmaker
George Lucas
Sound matters.

Sound even matters especially in Metaverse since the “being there” experience is possible only when the sound is...

Gaudio Lab holds the core technologies and people to foster them, has been playing around the VR/AR and Metaverse sector, and will create the future of them.
Sound really matters in the Metaverse

We can’t make a complete “being there” experience without a lifelike immersive sound.
Essential audio technologies for “Being There”

Real World

- Spatial Audio
  - BTRS

“Real-time live sound creation and reproduction”
  - Software-based immersive live sound generation
  - View-Adaptive and/or 360 Audio

Virtual World

- Audio AI
  - GSEP & SSG

“Sound generation matched to the visual information”
  - AI-based automatic sound generation
  - AI-based sound source separation
  - AI-based sound mix and master

*BTRS: Being There Recreate System, GSEP: Gaudio source SEPereiton, SSG: Sound Studio Gaudio
Gaudio Spatial Audio

Listen to the future

Provide the “Being There” audio experience, with IMU sensor embedded TWS

Objects (GA7) / Multichannel
- CODEC AGNOSTIC

Stereo (legacy)
- CODEC: MP3 / AAC / FLAC

Any Format Supported

IMU installed device
Spatial Audio Feedbacks

“ This is the new way of listening experience. ”
“ I feel as if I am in the concert! ”
“ I see a person next to me singing! ”

China Mobile_MIGU

TikTok

Blackbird Studio

Ozark Henry on Krug Event

China Mobile_MIGU

Blackbird Studio

TikTok

Ozark Henry on Krug Event
BTRS: Being There Recreate System for Livestreaming Platform ft. NOW.
BTRS - “Being There” Recreate System

Live audio editing tools to deliver the full immersion of the Metaverse

Current: Stereo Sound

Current: Stereo Sound

Not suitable for Metaverse platform

Sounds are in the head

Not corresponding to the screen

BTRS Mobile

“Being There” experience even in traditional 2D Screen environments.

(Mobile)

BTRS XR

Full “Being There” experience can be delivered

(HMD)
BTRS - How does it work?

NO installing additional acoustic equipment or changing workflow in existing sites.
BTRS Demo:

Red Velvet’s Seul-gi

Day By Day
술기 (With 조이)
(원곡자: 에즈월)

이어폰을 착용하고
입체적인 사운드를 경험하세요
NOW. Proven as 100+ Decent Live Shows
Concept 1) Performance show

RIR / Immersive presets
Concept 2) Chat show

Auto View Adaptive Audio
Auto View Adaptive Audio

Select a screen cut in real time during the broadcast.
Opening Event - Penta-port Rock Festival (Famous Outdoor Live Concert, Oct. 2022)
NOW. 4-5 Programs are on-air every week since Oct. 2022
BTRS On dingo

- BTRS featured music video on-aired every week (Season 1)
Audio AI
GSEP™ - What is Source Separation?

Extract individual audio sources (objects) from a complexed audio mix like a music signal.
GSEP™ - Instrument Extraction Demo

🎵 Eagles ‘Hotel California’

Check out demo at https://youtu.be/vkjt7j6iC3g
GSEP™
Voice Isolation Demo
v220331

Check out demo at https://youtu.be/IQ1EC8c00I1
Available FREE on:
http://studio.gaudiolab.io/
GSEP™ Applications

Essential to solve many unresolved market problems in audio applications

- Noise reduction on video call
- Clear Voice in watching movie
- Preprocessor for ASR
  - Automatic Speech Recognition
  - Noisy speech $\rightarrow$ GSEP™ $\rightarrow$ Clean speech
- Dialogue boost in TWS
- Karaoke mode on music streaming
- Text Sync - Lyrics, Subtitles
GSEP™ - Performance

Signal-to-Distortion Ratio (SDR)

<table>
<thead>
<tr>
<th>Platform</th>
<th>Signal-to-Distortion Ratio [dB]</th>
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<tbody>
<tr>
<td>Sony (D3Net)</td>
<td>7.24</td>
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<tr>
<td>Facebook (Demucs)</td>
<td>8.13</td>
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<td>Deezer (Spleeter)</td>
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<td>ByteDance</td>
<td>8.08</td>
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<tr>
<td>Gaudio (GSEP)</td>
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GENERAL INFORMATION

Main Events

- 01/2014  Adopted as ISO/IEC MPEG-H Audio international standard
- 05/2015  Established Gaudio Lab, Inc.
- 07/2016  Won 1st place in VR & AR Challenge (by the minister of Ministry of Science, ICT and Future Planning)
- 11/2016  Established Gaudio Lab, Inc. US Corp. (Los Angeles, CA)
- 09/2017  Awarded Innovative Company of the Year at the AMD Studios VR Awards

Mission Statement

Provide an excellent sound experience through our innovative audio technologies

Team Members

Total of 39 members
13 Audio professionals (8 PhD • 5 MS)

Intellectual Properties

82 Applied
41 Granted

Investment Status

07/2015  Seed investment from Softbank Ventures, Capstone, and TIPS
09/2016  Series A investment from Korea Investment Partners, LB Investment, Softbank Ventures, and Capstone
10/2021  Series B investment from LB Investment, Samsung, Naver, DS Asset, and Capstone Partners
Thank you.
Thank you.

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