


About Auracast™ broadcast audio

Auracast™ broadcast audio is a new Bluetooth® capability that allows transmission from one to many. By broadcasting to many, it has the potential to provide an assistive listening system (ALS) for people with hearing loss, and those with other disabilities, such as autism, low vision, auditory processing disorders, ADHD, cerebral palsy, etc.

Auracast broadcast audio can be used in two very different ways:

- *Auracast broadcast audio for Audio Sharing* (no live sound). Examples: Sports bar TVs and personal sharing audio. Audio sharing transmits from one smartphone or laptop computer to multiple Auracast compatible wireless earbuds, with friends and family.
- *Auracast streamed Assistive Listening (AL)** (live sound). Examples: theaters, lectures, and meetings, which stream to multiple users.

What is needed for an Auracast streamed ALS to be available and usable?

- **Auracast streamed ALS transmitters need to be compliant with the IEC 60118-17 Standard.** The standard, which is scheduled to be released in December 2027, will include latency limits, sound quality, connectivity requirements, and more. While manufacturers are now developing new equipment, *until IEC 60118-17 is published, it cannot be known if these will meet its requirements.* It is unknown if and when various new systems will meet the Americans with Disabilities (ADA) 2010 Standard for Assistive Listening Systems. 
- **Skilled installers** to integrate Auracast streamed ALS with any existing microphone or audio-visual system. Auracast streamed Assistive Listening (AL) is NOT “Plug and Play.”
- **End-to-end latency** is the summation of all the individual latencies of the components in the ALS signal chain that occur from source to user. This includes microphones, sound system or audio-visual equipment, Auracast transmission, smartphones or receivers, and hearing instruments. The total end-to-end latency must be acceptable for ALS users; as a rule of thumb (and this is currently under review), it should be less than ~30-40ms.
- **Compatibility with Public Address (PA) systems.** An Auracast streamed ALS will need to be able to connect to PA and paging systems, such as in airports or shopping malls.
- **Use of Auracast streamed Assistive Listening at service desks and help points.** To be used at ticket windows, pharmacy counters, etc. an Auracast streamed ALS would need to offer one-to-one communication, with privacy ensured.
- **Dedicated Assistive Listening stream.** At this stage, it is not clear whether Auracast broadcast audio will provide a dedicated Assistive Listening stream and, if provided, whether such a broadcast stream will connect to hearing instruments with easy, minimal interaction required by the listener.
- **Hearing instruments must be Auracast broadcast audio capable.** Few are currently Auracast broadcast audio capable, but manufacturers are beginning to develop new ones. The typical user’s hearing instrument life cycle is 5 to 7+ years.

What do users need to be able to use any ALS today and in the future?

Purchase ADA-Access-Ready hearing instruments now with both telecoil and Auracast capability. Users can go anywhere and use either an existing or a new system. See [2024 Declaration](#)

What is needed for Auracast streamed ALS to be available and usable?

- **Direct to hearing instrument[†] connections are strongly preferred.** Current designs for Auracast streamed Assistive Listening require intermediary devices such as updated smartphones, smartwatches, hearing aid remotes, or special receivers. Intermediary devices add complexity for individuals with limited dexterity, limited cognitive abilities, or limited tech familiarity. (People needing hearing assistance are often older and not tech-savvy.) Quick switching and adjustable balance between the ALS and normal listening are needed.

In the midst of change, some expectations and considerations

User equipment for early Auracast streamed assistive listening. Since the international standard is not finished and 99% of users do not have hearing instruments with Auracast capability, there are several workarounds. Thus, early systems are more equivalent to infrared or FM/RF ALS, rather than a hearing loop. Users will likely use the Auracast streamed ALS the same way as an infrared or FM/RF ALS: with receivers and headphones (those without hearing aids or telecoils) and receivers and neckloops (those with telecoils). Furthermore, without international standards and practical, reputable third-party proof of concept testing, site and user equipment may be incompatible, may not fully work, users may need to use equipment differently, and other unforeseen problems may present themselves during this time.

Coexistence of hearing loops and Auracast streamed ALS. “Where practical to install a loop system, that should still be considered as a primary choice for accessibility now, little has changed since hearing loops and telecoils were the preferred technology of choice by 86% of hearing aid users^{††}. Ideally, existing loop installations should be maintained and supplemented with an Auracast transmitter to future proof the provision. In new installations where practical both technologies should be installed in parallel, allowing access for all.” [Ampetronic ALS](#) equipment manufacturer, December 2023.

Equity. “To ensure access for all, it is critical that both Auracast and telecoils be included in hearing instruments for at least the next decade and probably longer. We aim to ensure that people with hearing loss can benefit from both current and emerging technologies to guarantee equal access to communication for everyone for years to come.” [US Declaration](#), “ADA-Access-Ready Hearing Instruments: Auracast™ and Telecoils,” Center for Hearing Access, 2024.

*The full technical name is “Auracast™ Broadcast Audio used as part of an Assistive Listening System (ALS)” and is simply identified as “Auracast streamed assistive listening (AL)” in this document.

[†]Hearing instruments: hearing aids, cochlear implants, and bone conductive devices.

^{††}Audio Engineering Society. April 2015. [Hearing Loops The Preferred Assistive Listening Technology](#).

About the Center for Hearing Access

Founded in 2024, the nonprofit Center for Hearing Access is a national advocacy and education initiative of The John G. Shedd Institute in Eugene, OR. We champion and educate users, sites, audiologists, and hearing instrument specialists about all ADA-compliant assistive listening systems and other strategies to increase access to theaters, libraries, conferences, government offices, courtrooms, places of worship, and other public and private spaces. Effective hearing access can be life-changing for people with hearing loss to maintain community engagement.

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