Modern hearing aids run on digital technology and rechargeable batteries. They come in flashy hues like fashion accessories or can be miniaturized to disappear in the ear. They can communicate over Bluetooth, becoming tiny wearable speakers for streaming music and navigation.

But what they cannot do, so far, is communicate directly with smartphones that run on Android operating systems.

Danish hearing-aid company GN Hearing is hoping to become the first to finally bridge that gap so that devices shipped from its North American headquarters in Bloomington will be able to seamlessly communicate with the billions of Android devices in the world.

That goal has not yet been reached. But GN Hearing is actively partnering with Android's developer, web-search giant Google, in a project to develop and implement new technical specifications that will allow future GN hearing aids to directly stream phone calls, music, TV or any other sounds from Android devices via low-energy Bluetooth connection. The system eventually will work for any hearing-aid company's compatible devices.

"With all of the Bluetooth-enabled devices that you have in your daily life, like your smartphone, it's a natural combination to have hearing instruments work with that thing that you have with you all of the time," said Kim Lody, president of GN Hearing North America. "We, collectively as a society, have this (Bluetooth) ecosystem. For medical devices to be part of that, along with those consumer devices—there is so much benefit for the patient," she said.

While direct streaming connections are available from Apple devices to hearing aids, Android users must use a third device in the middle, sometimes known as "phone clip," to act as a go-between for the phone and the hearing devices. The goal is for Android users to be able to have the same access to a direct connection between phone and hearing device.

Right now about two-thirds of downloads for GN Hearing mobile apps go to Apple devices, and one-third are for Android, but those numbers are expected to even out over time as the number of Android users grows. GN's latest hearing aid, the ReSound Linx Quattro, launched last month without the Android-pairing feature, but it will be activated on those devices once Google makes it available in a future release of Android.

Asked about the timing, GN Hearing spokesman Rich Fischer said, "We're following the rollout that Google and its partners are preparing. We are expecting to make the new technology available as firmware updates to all hearing aids from GN Hearing, including ReSound Linx Quattro." (People can expect to pay between $2,200 and $3,500 for a single hearing aid, before insurance, discounts and deals though audiologists.)

For Google, GN Hearing was chosen as a partner because of its history of innovation.

"GN Hearing is an innovator in the field of hearing aids, and shares Google's vision of creating an open specification which any hearing aid manufacturer could build upon," a Google spokesperson said in an e-mail.

In a blog post in August, Google engineering vice president Seang Chau wrote that having direct connectivity with Android devices would make it easier for people with hearing aids to use phones. "Users with hearing loss will be able to connect, pair, and monitor their hearing aids so they can hear their phones loudly and clearly," Chau's blog post said.

Such a change will open up about half of all the
mobile phones in the U.S. to the direct connectivity that Apple products have enjoyed since 2014. Apple users can stream phone calls, music and navigation directly to their hearing aids and adjust settings like volume and hearing aid functions from apps on their iOS phones or tablets.

Rather than using the Apple device's Bluetooth menu to connect, hearing aids can be paired to iOS devices through a dedicated option in the Settings menu (click "settings," then "accessibility," then "MFi Hearing Devices"). Pairing a hearing aid with an Android device is expected to work in a similar way, though the system is not yet finalized.

Although GN Hearing was the first to work with Apple to create the hearing-aid connection, that same connectivity is now available to any hearing-aid maker because it's built into the iOS on all updated Apple devices. GN is expecting a similar pattern to unfold with the Android endeavor, but Android is a lot more complex because it's an open-source software stack with many different versions available.

Lody said it was a conscious decision to work on a communication channel that other companies will eventually be able to use.

"We are innovators, and we believe in being first and setting that standard," Lody said. "But we also believe that it's really good for the total population of people with hearing loss for others to follow. We like being first, we like creating the standard, but we also like that it extends into the overall population."

©2018 Star Tribune (Minneapolis)
Distributed by Tribune Content Agency, LLC.

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.