Bluetooth 6.0 has more security and precision for tracking and finding

The next generation of Bluetooth could make it easier to track down lost tech. On Tuesday, the Bluetooth Special Interest Group (SIG) announced the release of Bluetooth 6.0, which includes a new precision tracking feature that could improve the Find My networks from companies like Apple, Google, and Tile.

Bluetooth is the protocol that controls wireless communication between devices. The Bluetooth SIG, which oversees the standard, periodically releases updates with new capabilities. Bluetooth's last major update took place in 2016.

Bluetooth 6.0 introduces a feature called Channel Sounding, which can determine the distance between two devices with "centimeter-level accuracy," according to the Bluetooth SIG. To do this, it uses phase-based ranging to send radio signals between two devices — say your iPhone and your AirTag — at different frequencies, allowing it to calculate the distance between them. Developers will soon be able to incorporate this into Find My devices, making location tracking more precise.

Additionally, Bluetooth 6.0's Channel Sounding is supposed to address some of the security concerns that come with digital keys that are used to unlock your car or hotel room. With more precise tracking information, developers can make sure a device only unlocks when a digital key is within a specific range. This could help prevent man-in-the-middle attacks, in which a bad actor intercepts communications between your phone and lock, potentially giving them access to your vehicle.

The Bluetooth SIG says there are several other ways developers can use Channel Sounding to improve user experience as well, including by having Bluetooth mice, keyboards, game controllers, and other devices “automatically switch between active and inactive states based on their distance from a smartphone, tablet, or laptop.”

It will likely take a while for devices to adopt Bluetooth 6.0, but it sounds like it could bring some noticeable improvements to the way we find and switch between wireless devices.

https://www.theverge.com/2024/9/5/24236565/bluetooth-6-security-precision-tracking-finding