Silicon Labs Newsroom

Silicon Labs Supports New Bluetooth® Mesh Feature Enhancements & Networked Lighting Control Standardized Profiles

New features and standards from Bluetooth SIG supported by all Silicon Labs Series 2 Bluetooth SoCs

AUSTIN, Texas, Sept. 19, 2023 /PRNewswire/ -- Silicon Labs (NASDAQ: SLAB), a leader in secure, intelligent wireless technology for a more connected world, today announced their support for the Bluetooth Special Interest Group's (SIG) new feature enhancements for Bluetooth Mesh as well as their new Networked Lighting Control (NLC) standard, which seeks to provide a single standard for commercial and industrial lighting using Bluetooth Mesh.

"The new enhancements and profiles released today by the SIG will be supported by Silicon Labs devices and we look forward to applying the optimizations, cost-savings, and security enhancements in the new release for our customers," said Ross Sabolcik, Senior Vice President of the Industrial and Commercial Business Unit at Silicon Labs. "Silicon Labs devices have supported Bluetooth Mesh since it launched in 2017, and we have helped a countless number of our customers adopt the standard for use cases like building automation, predictive maintenance, and commercial lighting."

New Features Available Today on Silicon Labs Bluetooth SoCs and Modules
Silicon Labs devices support these new Bluetooth Mesh Feature Enhancements:

- **Device Firmware Update:** Mesh deployments often have hundreds of nodes, and they rely on their firmware to keep them operating at their peak, protect against threats, and leverage the latest features of the network. Device Firmware Update greatly simplifies this process, as it now allows operators to update one device, which will then push the update to the rest of the network.
- **Remote Provisioning:** With the original iteration of Bluetooth Mesh, network operators had to provision each device individually, a costly, time-consuming, and depending on the environment, sometimes dangerous task. With remote provisioning, the network itself can help provision devices without needing an operator to be in direct range of the new device.
- **Certificate-Based Provisioning:** To better prevent counterfeit devices from infiltrating a network, unique certificates can be injected into devices during the manufacturing process to help network operators authenticate new additions to a network.
- **Private Beacons:** Enhancing network security, private beacons will use encryption to eliminate static information in beacons being shared outside of the network. This means that devices on the network and their users can no longer be tracked by malicious actors.

These four features are supported on the BG21, BG22, BG24, and BG27 SoCs and modules.

Standardized Network Lighting Control Device Profiles Improve Interoperability for Commercial Lighting
Part of the reason that Bluetooth technology has become such a prevalent technology in people's lives is its reliance on standards. Through standards, the Bluetooth connections made between phones, PCs, headphones, game controllers, vehicle entertainment systems, and countless others all work because they all have built and established trust in the device profiles that initiate these connections, and they are universally used and available.

The Bluetooth SIG is taking that to the next step with the release of their new Network Lighting Control (NLC) bundle of device profiles. These standardized profiles will improve interoperability, scalability, simplify integration in the field, and grow the Bluetooth ecosystem. The same Silicon Labs Bluetooth SoCs and modules that support the new feature enhancements can also support the following NLC profiles: ambient light sensor, basic scene selector, dimming control, basic lightness controller, and occupancy sensor.

Build New Solutions Today with Silicon Labs and Bluetooth Mesh
Silicon Labs customers interested in leveraging these new Bluetooth Mesh feature enhancements should download the latest SDK and contact Silicon Labs. In addition, developers can learn more about Bluetooth Mesh and other Bluetooth IoT tools in Silicon Labs' library of educational resources, including:

- The Silicon Labs Bluetooth Mesh learning center
- A new Silicon Labs Bluetooth Mesh blog
- A new white paper diving deeper into the new Bluetooth Mesh enhancements
- The Bluetooth LE Device Development track of free on-demand video sessions from the Silicon Labs Works With Developers Conference
- The updated Silicon Labs Bluetooth Selector Guide

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