



SILICON LABS



matter

Matter Connectivity Standard FAQ



[Matter](#), the global IoT connectivity standard designed to enable seamless communication across IoT systems, has been one of the most important developments in our industry over the last couple of years. Formerly known as Project Connected Home over IP, or Project CHIP, Matter is being developed to provide a unified connectivity standard for a wide range of smart home and commercial applications, including LED bulbs, door locks, HVAC, commercial lighting, and access control.

As you can imagine, this is a complicated proposition. Silicon Labs has been involved in driving Matter forward since its inception and below are answers to some of the most common questions we receive on the standard.

What are the benefits of Matter?

Matter is designed to provide interoperable, reliable, and secure connectivity across IoT devices, networks, and ecosystems. As such, it's a connectivity standard that builds on existing IP-connectivity protocols to enable seamless communication across IoT systems including embedded devices, mobile apps, and cloud services.

It also simplifies development for a wide range of smart home and commercial applications including LED bulbs, door locks, HVAC, commercial lighting, and access control. This benefits the end customer as well because a new Matter device can be controlled as part of multiple ecosystems in the home. For example, a light bulb can connect into Amazon Alexa, Google Home, and Apple HomeKit at the same time. Consumers can add new products and brands to their smart home without worrying about if it will work or not. Device manufacturers wanting to add additional device types are invited to join the discussions within the [Connectivity Standards Alliance](#) (CSA) and help expand the device types supported today.



In addition, Matter is being built as an open source project on GitHub. This will enable more developers to participate in the development process to create robust and secure software that will successfully interoperate among all implementations.



When will Matter devices be available to consumers?

The goal is to have the first end-devices available by the end of 2022 with the initial focus on smart home applications. But Matter is designed to scale to other areas as well, including commercial buildings, industrial IoT (IIoT) and medical applications.

What applications and device types will be supported by Matter?

Matter uses the Zigbee Cluster Library for its data model, which is very well developed and has numerous device types already defined. This will speed up standardization because it doesn't require starting from scratch, and has streamlined the adoption of new device types and clusters defined by Matter. Further, the standardization supports innovations by manufacturers in expanding easily with new device types and applications in the future.

How can I certify a Matter device?

Work is ongoing within the CSA to develop a certification program including a test harness that will validate devices to ensure they have implemented the standard correctly. The certification program for Matter is expected to be launched in the first half of 2022.





How does Matter improve security of IoT devices?

Security is a core tenant of Matter, including authentication of devices joining the network, encryption of messages all the way to the destination, use of proven and standard cryptographic algorithms, and over-the-air (OTA) updates. Silicon Labs' Secure Vault prevents IoT ecosystem security breaches and protects intellectual property or revenue loss from counterfeiting. When combined with Secure Vault, Matter delivers state-of-the-art security that helps connected device manufacturers address escalating and ever-evolving IoT security threats.



Is Bluetooth supported?

Matter is designed to run on IP protocols, but Bluetooth can be used for device provisioning.



How do I access the specification?

A feature-complete base specification was approved in early summer of 2021, providing members a common definition to move forward with implementation and testing. Once the specification is board-approved, the CSA will release the standard.



Will Zigbee accessories receive firmware updates, or will the bridge be the only piece requiring an update for Matter?

While it should be technically possible to convert in-field devices running the latest generation of 802.15.4 chipsets from Zigbee to Thread using OTA updates, older devices would likely not meet the security or stack space specifications required for Matter.

It will be simpler, more stable, and a better user experience to bridge existing sensor networks to interoperate with Matter networks.



How is Z-Wave going to fit into Matter?

Z-Wave (and Zigbee) networks have IP at the gateway level enabling cloud connectivity to Matter. Further we will see bridging products, enabling Matter and Z-Wave products working together at local network level.



How will Z-Wave devices connect to the Matter ecosystem?

Bridges will allow non-Matter devices, including Z-Wave, to interact with Matter ecosystems.



Can Zigbee and Thread be run in a single chip?

Silicon Labs is a leader in multiprotocol wireless technology, and we continue to look at ways to support Matter use cases with our EFR32 platform.

What will happen to my existing Zigbee devices?

CSA understands that Zigbee is an evolving technology with a large deployed product base. It is being shaped by industry needs and the preferences of device manufacturers. Because of this, it's important that Matter and Zigbee co-exist. As an industry it's important to move together in unison and the CSA has demonstrated its commitment to pioneering ways to speed up innovation, development, and adoption.

How is Silicon Labs supporting Matter?

Silicon Labs has strong expertise in the wireless protocols supporting Matter (Thread, Wi-Fi, and Bluetooth), and offer a range of Matter-compatible silicon, software, as well as the development tools. We're driving Matter development forward as one of the largest code contributors in the GitHub, and we've been involved in the project from its inception. Starting with 2022, Silicon Labs is planning to fully integrate Matter as part of Gecko SDK and Simplicity Studio to provide the same level of best in class developer experience as for the other protocol stacks. To learn more about how Matter will impact our industry, check out this [panel discussion](#) moderated by IoT thought-leader Stacey Higginbotham about how the standard is progressing.



Get involved

Matter is an open-source project available to anyone to evaluate. If you're interested in helping develop the standard, you can become a member of the CSA. You can learn more about developing with matter by visiting silabs.com/matter. For more information about joining CSA, visit <https://zigbeealliance.org/join/>.

For more educational and technical resources on Matter, visit **www.silabs.com/matter**.