

The smart home industry has been rapidly evolving, and at the centre of this evolution is the Matter protocol.

Designed to be the unifying thread for smart home devices, Matter leverages existing IP technologies, such as Wi-Fi and Thread, to set a new open standard in the world of smart devices.

The emergence of Matter 1.2

Recently, the Connectivity Standards Alliance unveiled Matter 1.2, representing the second wave of updates since its debut in 2022. These updates not only introduce a broader range of device types but also amplify Matter's reach into new markets. Furthermore, these enhancements foster better interoperability and elevate the user experience.

Diverse device integration with Matter 1.2

The expanded roster of Matter-compatible devices now includes:

- Washing Machines
- Refrigerators
- Dishwashers
- Room Air Conditioners
- Robotic Vacuum Cleaners
- Air Quality Sensors
- Air Purifiers
- Smoke/CO Alarms
- Fan Control

Notably, some of these devices were previously overlooked by existing protocols. Although many were Wi-Fi-enabled, they suffered from a lack of ecosystem support and often necessitated proprietary app control. Matter 1.2 changes the game. It not only simplifies the user experience but also promotes seamless integration into major smart home ecosystems.

Moreover, Matter 1.2 brings new features that enhance product description during the commissioning process. For instance, a door lock with a chrome finish can be clearly identified in a Matter Controller's UI, ensuring users are interacting with the correct device. Similarly, a multi-bulb lamp can pinpoint the exact bulb being linked to a smart switch, eliminating any guesswork.

Silicon Labs is not just a passive observer. With Matter 1.2, the company provides the necessary clusters to support both new and pre-existing Matter devices. Using the ZCL Advanced Platform (ZAP), customers can easily set up the required end points, clusters, and attributes.

The role of Wi-Fi 6 in Matter's evolution

Wi-Fi 6 is becoming pivotal in the IoT landscape. It aims not only to boost bandwidth but to cater to diverse applications with varying bandwidth needs. This is particularly crucial for battery-powered devices, which may not demand high bandwidth but necessitate extended battery life. The amalgamation of Matter and Wi-Fi ensures users enjoy a seamless experience across a spectrum of devices and applications.

Developers can leverage Silicon Labs' SiWx917, an IoT-optimised offering that marries Wi-Fi 6 with Bluetooth LE networking and Matter. This SoC is designed for maximum battery life, top-tier security, and AI/ML accelerators, making it ideal for a range of applications from smart homes to healthcare.

Unwavering commitment to security

Security has always been at the heart of Matter. With 1.2, the protocol continues to uphold stringent security standards. Silicon Labs supports developers in this endeavor with its Custom Part Manufacturing Service and Secure Vault, a suite of security features tailored to address current IoT challenges, many of which resonate with Matter's core concerns.

The future of Matter

The rapid adoption of Matter is evident, especially with major players like Amazon integrating it into over 100 million Echo and eero devices. As we look to the horizon, we can anticipate the addition of cameras and energy management devices, further solidifying Matter's dominance in smart home ecosystems.