



What Matter Means to the Smart Home Ecosystem



When Amazon, Apple, and Google effectively launched a cease fire in the smart home market with Project Connected Home over IP (CHIP), now known as [Matter](#), they gave the industry a glimpse into just how important interoperability will be. Understanding that consumer adoption will be directly tied to manufacturers' ability to provide reliable and secure user experiences, Matter is an application layer that will unify devices operating under various IP protocols, allowing them to communicate across platforms. With a Matter certification from the Connectivity Standards Alliance, a product will be compatible with Amazon's Alexa, Apple's HomeKit, and Google's smart home ecosystems and the first Matter devices are expected to hit the market later this year. In addition to being easier to integrate with the most common smart home products and voice assistants, they will also be fortified against a wide range of emerging cyber threats with an architecture that prioritizes a security-first design philosophy.

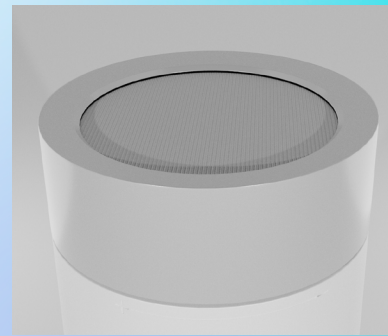
Simplifying the development of smart home devices for manufacturers, coupled with making the introduction of new devices easier for consumers, are the primary drivers for the Matter standardization. But simplicity and desirable products will only get the industry so far. The value that a selection of safe, feature-rich products will be to the market can't be overstated. Here, we take a look at some of the industry attitudes toward Matter and how this new era of collaboration will set the stage for smart home innovation.



The Smart Home Industry Turns its Attention Toward Matter

When we think of a smart device, generally what comes to mind is something that is connected. But that's just the first step. Connected devices are cool, but when they can integrate across multiple platforms is when they have the potential to really dazzle. Interoperability across technologies and smart home platforms will have an exponential impact on user experience, and because Matter is an open standard it will also enable SDK development to further push the boundaries of what devices can do.

One of the most important questions around Matter is how it will affect the market dynamics in an already active area. Smart home adoption is increasing to the point where consumers have developed a basic expectation for the level of convenience and comfort smart home devices offer. Interoperability and better security should only encourage adoption but getting more smart devices into the hands of more consumers is the ultimate goal. Helping device makers focus on specific points of differentiation and value will pave the way for better products, but it will also set a foundation for customers to introduce new devices into their homes and maximize the investment in smart products they may have already be committed to.



The Risks vs The Rewards of the Matter Standard

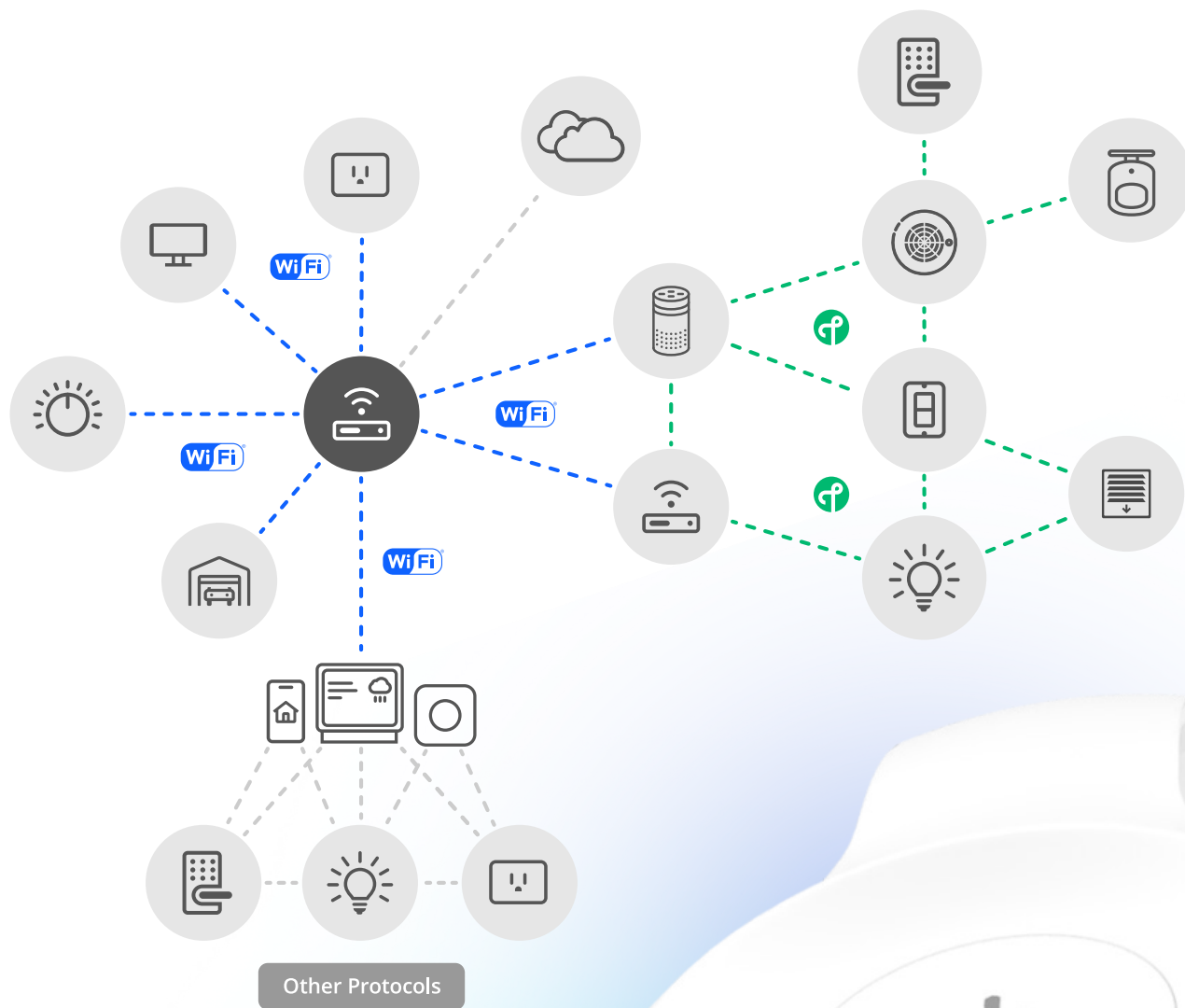
The Matter standard is currently in development and this process comes with some unknowns that understandably need to be considered. One of these concerns is how much of a burden certification presents to device makers. Adding development time to projects to account for Matter certification is a valid concern but needs to be weighed against the benefits of a product line that is fully compatible with the most common brand names. Another potential area of risk is the possibility of encouraging competition between ecosystems. Forcing customers to pick an ecosystem is adding a burden that they don't necessarily face today. When a consumer buys a connected device, one of the first things they do is install an app from the manufacturer. This usually means having an app for every brand of product in the home, which can become overwhelming quickly. This also means becoming part of the brand's ecosystem. Manufacturers can create devices that potentially can connect to any Matter-compliant ecosystem, reducing complexity for the user and offering a cohesive experience across devices. But there are also benefits that come with increased competition. Device makers will need to consider this new potential point of differentiation - instead of competing based on the performance of own applications, they now need to attract customers to their ecosystem. Matter doesn't prevent manufacturers from creating their own apps to provide users with branded experiences, but in a Matter ecosystem it will no longer be a requirement.

Another unknown that accompanies any standardization project is getting companies to work together and building enough interest to draw participants. This challenge has been largely mitigated with Matter, partly thanks to the clout of its founding members but also because the industry recognizes the importance of interoperability. Companies are enthusiastically pursuing Matter designs and the risks are waning with each revision. The challenge now turns to making the most of the spirit of cooperation and releasing a great certification when the time comes.

Bringing IoT to New Areas and the Value of Multi-Admin in Matter Devices

Matter will bring connectivity to new applications and services by removing barriers for end users as well as developers. For consumers, a healthy selection of Matter-compliant devices that deliver on its promise of usability and interoperability will drive demand. For developers, Matter represents a path forward also for working with existing technologies like Zigbee and Z-Wave through the use of bridging products.

Designed to be highly inclusive, Matter devices will also have multi-admin capability. Instead of requiring discrete device and ecosystem compatibility or connectivity where developers need to create a product that is specifically compatible with a manufacturer's ecosystem, multi-admin allows the device manufacturer to build once and deploy everywhere because devices can connect to any Matter-compatible ecosystem.



Matter's Security-Centric Approach

One of the foundational elements of Matter is security, which is essential to the smart home market. All Matter devices are part of a block chain registry from the moment it's manufactured, so there are elements of security wrapped into to every stage of the lifecycle. At any point in time a Matter device can be tested for authenticity. There are a number of rules and methods that prevent network attacks as well. For example, if a homeowner shares their Wi-Fi password with a guest, there's nothing that will show them where devices are, what they look like, or what types of devices are connected.

With device attestation, users will not be able to introduce a "rogue" node with Matter certification. This is further secured by new levels of hardware security. [Silicon Labs' Secure Vault](#) is part of this new generation of silicon and represents a big step forward in IoT security. Device manufacturers need to manage programing and the certificates, and vendors are working together to make that easier. Security remains one of the most significant barriers to entry for consumers considering smart home products. With every high-profile breach, it falls to the industry to rebuild trust. This is only possible through collaboration because the problem is more than one company or one product or one protocol can overcome. But Matter is a critical step in overcoming concerns and establishing a benchmark of trust that manufacturers can build on.



Whether you're ready to get started with Matter, or your company is still determining its strategy with this technology, Silicon Labs is well-positioned to help you understand what you need to know about Matter and how to start prototyping today.

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