

arre achieves smart security, seamless experience with DigiCert Device Trust Manager

Executive Summary

Company name: arre

Industry: Consumer

Headquarters: New York, NY

Key business requirements:

Embed robust security into modern smart home devices without compromising ease of use, functionality, and visual or operational design

Achieve Matter standard compliance while managing limited device memory capacity

Integrate PKI and certificate management without detracting from core product innovation focus

Solution:

DigiCert Device Trust Manager

Key benefits:

Streamlined certificate generation slashes processing time from days to seconds, accelerating product development and time-to-market for smart home devices

Seamless integration of Matter protocol ensures secure connectivity and interoperability across multiple smart home ecosystems without compromising user experience

Automated certificate management simplifies compliance with evolving security standards, future-proofing arre's products and reducing ongoing maintenance burden

Optimized security processes allow arre to uphold product quality standards while rapidly scaling production to meet increasing market demand

Challenge

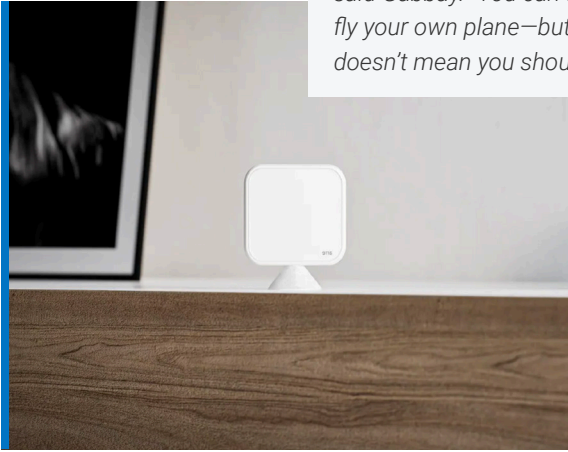
Build ironclad security into smart home devices without harming the user experience

Smart home device maker arre has a singular mission: to redefine the smart home experience by building products that simplify the lives of their customers without inadvertently generating unforeseen headaches. "When you open an arre product, you can expect to do three things: unbox it, pair it, and have it work the way it's supposed to the first time," explained Sam Gabbay, president and cofounder of arre. "We do this by thinking about the problem we want to solve, crafting a solution, and then dissecting this solution to determine all the potential complications a user could run into in using it. Then we rebuild it with all those contingencies in mind."

Perhaps the biggest challenge arre faced in building their growing array of smart home accessories was embedding security into their devices. Too many IoT devices have compromised user privacy and security over the years, often in highly publicized incidents, and as Gabbay pointed out, that risk alone obliterates any promise of simplicity. "If a smart home product isn't secure, that breaks its integrity," he said.



"You can do your own PKI," said Gabbay. "You can also fly your own plane—but that doesn't mean you should."



But arre wasn't sure how to bake security into their products without making them difficult to use. For one thing, their products needed to connect and communicate using the Matter standard, which leverages the proven technology of PKI to secure communications among IoT devices. But Matter can take up more than two-thirds of a device's limited memory, which doesn't leave much room for handling digital certificates. Also, arre recognized the difficulty in setting up and managing digital certificates in-house because that would detract them from their core focus on designing innovative and user-friendly smart home products. "You can do your own PKI," said Gabbay. "You can also fly your own plane—but that doesn't mean you should."

Solution

DigiCert Device Trust Manager streamlines secure integration for smart home devices without compromising ease of use

Fortunately, arre learned that DigiCert Device Trust Manager could provide them with everything the company needed to incorporate robust security into their products without compromising on the user experience or slowing down development cycles. "Device Trust Manager could get us up and running with cutting-edge security two months faster than any of the competing solutions we looked at," says Gabbay.

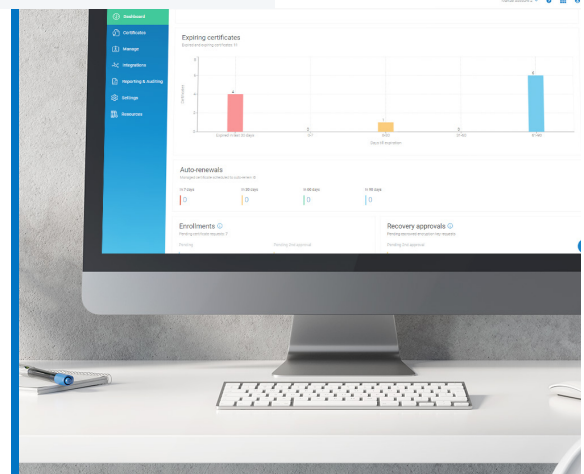
In addition, Device Trust Manager provided Matter compliance and interoperability as part of its robust security feature set. Gabbay appreciated how Device Trust Manager took away the complexities of implementing bulletproof security. "DigiCert treated us in much the same way we treat our customers," Gabbay said. "They're as committed to simplicity and ease of use as we are, which we really appreciate."

Accelerating time-to-market with simplified certificate management

Device Trust Manager helped arre significantly streamline the management of digital certificates used to secure their smart home devices. "Device Trust Manager took care of the certificate authority roots and was able to start issuing certificates within a couple of days," Gabbay said. "Now I can focus on what's most important to me—designing beautiful products, developing their software, and ensuring the product works as intended."

In addition, arre could now accelerate their time-to-market, bringing their uniquely user-centric smart home devices to consumers faster than ever before. "It used to take a couple of hours to manually generate the certificates that were put on just a few of our devices. The team at DigiCert showed us how to leverage Device Trust Manager to take those couple of hours of work and cut it to 30 seconds," said Gabbay. "I can sleep soundly knowing our products are properly secured for our customers."

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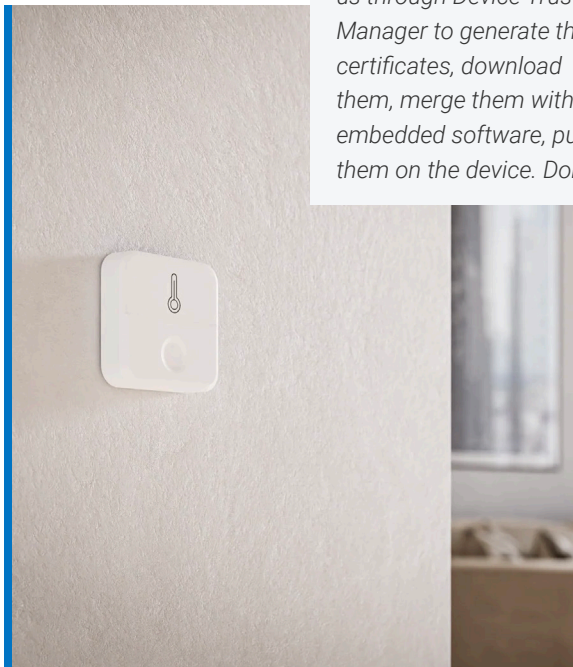
Securing Matter compliance and interoperability

DigiCert Device Trust Manager not only simplified the process of securing arre's smart home products, but it also ensured that these devices could safely connect and communicate with other smart home ecosystems on the Matter protocol without compromising on user experience or device functionality.

"You need security to have interoperability. That's really when I had the conversation with DigiCert—because Matter had all these security requirements that, originally, I didn't really know about," Gabbay said. "Device Trust Manager facilitates the magic that allows an application layer like Matter to exist in a way where you can have one product that pairs across multiple ecosystems using PKI."

By providing a high level of secure interoperability, Device Trust Manager provides arre customers a truly seamless, secure, and standards-compliant connected home experience. "DigiCert is always thinking 10 steps ahead when it comes to ensuring security without sacrificing interoperability. I don't have to think about maintaining compliance with new standards because DigiCert makes sure that we're covered," Gabbay said.

"They've made it simple for us through Device Trust Manager to generate the certificates, download them, merge them with my embedded software, put them on the device. Done."



Bolstering customer trust for scalable success

arre has grown dramatically since their founding in 2021. As of mid-2024, the company has sold tens of thousands of devices, with plans to scale growth considerably over the next several years. Gabbay said that arre's partnership with DigiCert has already shown results because it has helped position arre as a company that consistently prioritizes customer trust in all the products they ship.

"Before we started using Device Trust Manager, it took four hours to manage 300 digital certificates. Now, all I have to do is click one button, and within 30 seconds I can have thousands of certificates ready to be embedded on my devices for production," said Gabbay. "I can go to sleep at night knowing that DigiCert is handling everything under the hood in the proper way."

This ability to manage device trust becomes more critical when considering the many other constraints posed by consumer IoT devices. The much smaller memory capabilities mean that arre has to somehow make sure that in addition to the space taken up by Matter, the device must handle arre's code while maintaining its functionality and security on minimal battery. "Security is a roadblock that a lot of companies haven't been able to solve, and that keeps them from being successful," Gabbay noted. "But we realized it could be an opportunity for us."

arre's partnership with DigiCert has already shown results. "DigiCert handles the complex security side, so I no longer have to worry about all that," Gabbay said. "They've made it simple for us through Device Trust Manager to generate the certificates, download them, merge them with my embedded software, put them on the device. Done."

Simplify your smart device security with DigiCert.

Visit digicert.com/device-trust-manager to discover how our Device Trust solutions can reduce complexity and accelerate your time-to-market.