



COMARCH

 **SILICON LABS**

Development of HomeKit for Silicon Labs

About Silicon Labs

Silicon Labs is a renowned provider of silicon, software, and various Internet of Things (IoT) solutions dedicated to **shaping a connected world**. The company's award-winning technologies influence the future of numerous industries such as smart homes, industrial IoT, smart cities, smart retail, and healthcare.

Our cooperation with Silicon Labs

Since 2013, Comarch has maintained strong cooperation with Silicon Labs, enabling our experts to deliver exceptional support for diverse projects showcasing their vast competencies. **Cooperation currently covers 11 active projects**. The expertise of our team members, combined with the long-standing relationship between both companies, are key factors for choosing Comarch in these collaborations.



Project objective

Silicon Labs aimed to develop a HomeKit solution by integrating the HomeKit accessory development kit with the company's Bluetooth Low Energy stack and OpenThread stack. **The goal was to create an intuitive development environment suited for HomeKit accessories, leveraging Comarch's expertise and Silicon Labs' technology.**

Comarch's competencies

- Development of production tools, mobile apps, firmware, and SDK
- Automation of qualification tests
- Maintenance of solutions created externally and by Comarch
- Application engineering
- Technology stack
- Hardware design
- Third-party system integration

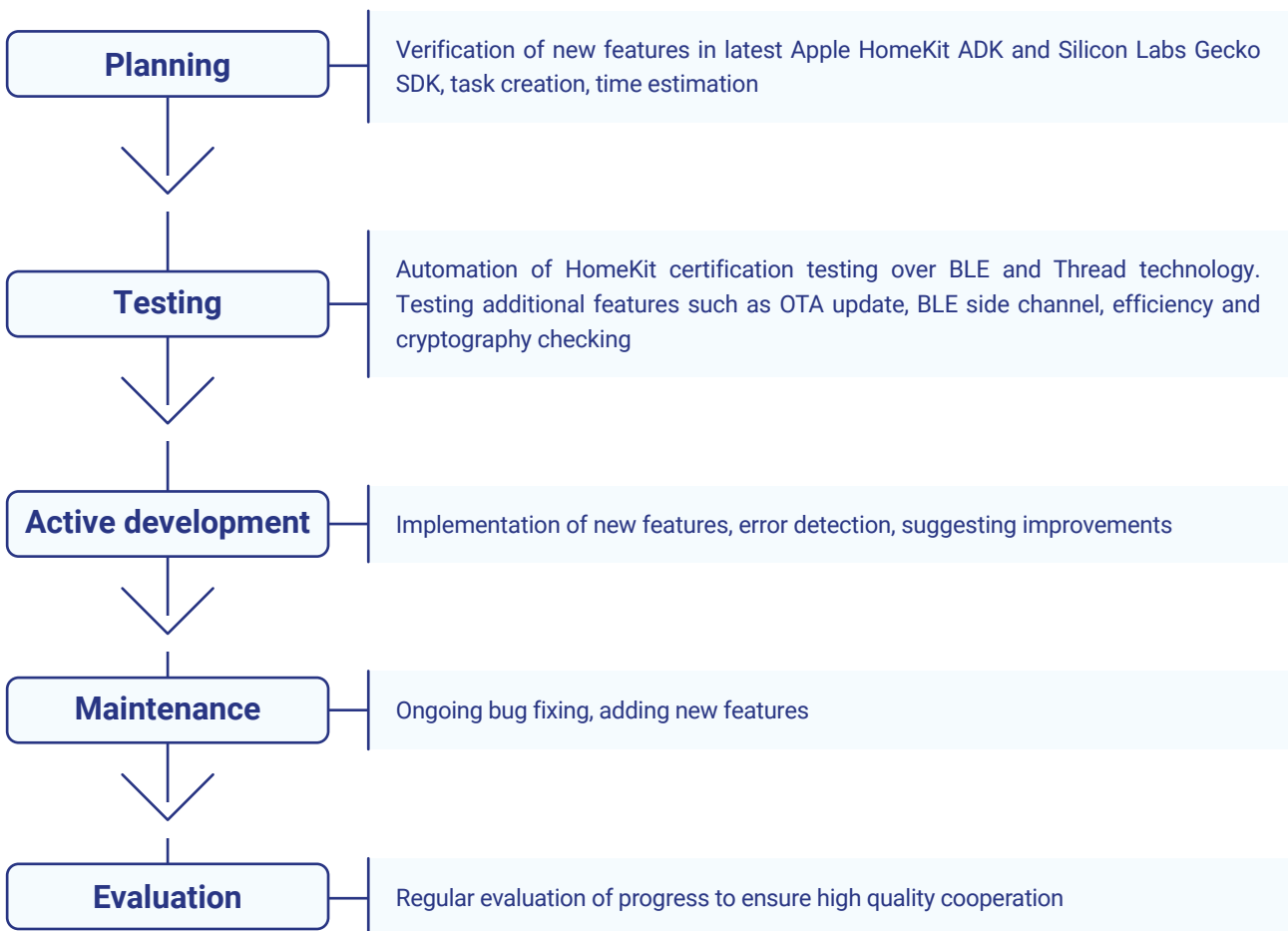
Benefits for Silicon Labs

- Extensive knowledge of the IT industry combined with Silicon Labs technology
- Highly skilled engineers
- Hands-on experience with the newest technologies
- SLA depending on Silicon Labs' needs
- Flexible pricing and business model
- Stable, long-term partnership with Comarch resulting in the ability to plan future development

Project overview

The Silicon Labs HomeKit SDK integrates the HomeKit ADK with Silicon Labs' Bluetooth LE stack and OpenThread stack. **This SDK can be used to develop any HomeKit accessory defined in the HomeKit protocol specification.** Thanks to the integration of HomeKit ADK with Silicon Labs SDK, the development of HomeKit accessories becomes easy and intuitive. The Silicon Labs HomeKit SDK contains a few HomeKit Lightbulb example applications that can be used as a reference. It was based on the BLE and Thread protocols, and can work in single or DMP mode (BLE + Thread).

During Silicon Labs HomeKit SDK development, a few key features/improvements have been implemented. A secure key storage mechanism was introduced, and an additional BLE side channel was implemented to extend HomeKit application with external user-defined protocols. Default applications were also extended by a BLE OTA firmware update mechanism.



Successful delivery

Comarch has almost 30 years of experience in IT industry. This background enabled us to deliver exactly what our client had in mind. The project couldn't be completed without the help of engineers performing bug verification, testing, client contact, log checking, and documentation. **Our competencies in operating fluently across a vast scope of technologies mean that there isn't an IT problem that we cannot resolve.**

Comarch's cooperation with Silicon Labs, along with the support provided, allowed us to create a new Silicon Labs HomeKit SDK, which became an extension for Silicon Labs GSDK. This allowed many Silicon Labs customers to create HomeKit accessories for production, expanding their product offerings and tapping into the growing market demand for smart home solutions.

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About Comarch

Comarch is a global provider, with 30 years of experience, of technologically advanced software designed to help enterprises improve their business efficiency, reduce operational costs, and build strong relationships with all of their partners and clients. Comarch has made its name by working with some of the most renowned brands and organizations in the world, including various airline holding companies, telecoms, financial institutions, retailers, and many others. Comarch's clients include ENOC, Enterprise Holdings Inc, JetBlue Airways, Exxon Mobil, BP, Heineken, Goodyear, and Vodafone.