



Proved security for a smart home: Re-certification of the Bosch Smart Home System

Since its founding as a subsidiary of Robert Bosch GmbH in 2016, Bosch Smart Home GmbH has been developing and improving „smart“ devices that make private households safer and smarter and have enjoyed growing popularity. More and more users are happy to come home to a pre-heated home after work and save energy in the process, thanks to remotely operable or automatically regulated thermostats. Others keep an eye on their pets while away from home via smart cameras or feel safer knowing that they will receive a notification if the smoke alarm sounds or a window opens at home. This often creates very complex infrastructures that offer cybercriminals correspondingly large attack surfaces. Since we are dealing here with devices in a private environment, data protection has to be treated as a high priority and IT security must be given special attention.

Past certifications of the Bosch Smart Home System show that Bosch Smart Home GmbH is aware of this responsibility: „The Smart Home System was certified for the first time back in 2017 and we are pleased to now also be allowed to audit the current 2022 version of the smart products,“ says Hendrik Dettmer of TÜV TRUST IT GmbH, TÜV AUSTRIA Group, which was commissioned as an external, objective body for the re-certification. Hendrik Dettmer further explains that the manufacturer Bosch Smart Home will thus benefit from a continued high positioning on the market. However, the ultimate goal remains the certainty of offering sustainable and effective information security.

This is what it is all about: Bosch Smart Home Systems - intelligent IoT products for home

Cameras and smoke alarms, door and window contacts, thermostats, lighting control devices and much more: the Bosch Smart Home System includes a wide range of smart, wireless-controlled devices that can be easily managed via app, even from outside the home via cloud. All of these are designed to increase the overall quality of living by simplifying daily processes, increasing user safety or contributing to efficient energy use. For example, the smart devices allow the user to be informed via push message when a window is opened and enable the creation of schedules for intelligent heating and lighting control. The core of the entire infrastructure is the Smart Home Controller, which is the central control unit that connects all devices and stores system data locally.



Re-certification of the Smart Home System: the realisation

For complex IoT projects like this, the audit must also have a correspondingly comprehensive basis. In this case,



Success Story

a catalogue that covers the entire scope as well as the basic conceptualisation of the certification as a TRUSTED IoT device. Based on the requirements in this catalogue, the Smart Home Controller and a number of sensors were examined thoroughly in this project.

The important thing was not to lose sight of the big picture. So first the safety functionality of the tested devices was recorded and a number of documentations were collected and evaluated. This was followed by a technical comparison: Were the developed functions actually implemented and professionally realised? The subject of the test was, for example, the hardening of the so-called „embedded systems“ and the secure loading of software updates. The experts also checked whether encrypted connections between the individual components of the system – sensors, controller, app and cloud – are really secure. Finally, things got exciting: With the help of common attack techniques, the security experts from TÜV TRUST IT attempted to penetrate the system in a penetration test and thus uncover vulnerabilities. With great success for the audited company: The Bosch smart home system was able to pass this extensive test again and was thus certified as a TRUSTED IoT device once more.

More than prestige: Which are the concrete benefits of certification?

Daniel Backes, project manager at the TÜV TRUST IT GmbH, TÜV AUSTRIA Group, is pleased with the good result once again and underlines the practical benefit that Bosch Smart Home GmbH can draw from this re-certification: „The certificate as a TRUSTED IoT device is a very clear message to

the company's customers, for whom it is important to be able to trust in the security of their purchased products“.

However, in order to continue to give effective security the highest priority, Christian Thess, managing director of Bosch Smart Home GmbH, wants to start at the development stage of IoT devices: „At Bosch Smart Home, data protection and data security have always been a very high priority. Together with product development, our experts take care of the security assessment and the protection requirements of the products. The entire product life cycle is taken into account, starting with the first step of the development process, through the introduction of the products and functions, to ongoing operation. An integral part of this is that we have our security regularly and intensively tested by external, independent institutes such as TÜV TRUST IT. We are very pleased that our system has been certified again.“



TÜV TRUST IT GmbH

Unternehmensgruppe TÜV AUSTRIA

Waltherstraße 49–51 · D-51069 Köln

Phone.: +49 (0)221 969789 - 0

Fax: +49 (0)221 969789 -12

info@tuv-austria.com

www.it-tuv.com

