EiMSIG® HausDisplay

"Avoiding unauthorized access to the network while using device applications provoked the need for an SSL/TLS security implementation in our smart home product. We chose wolfSSL because of their industry reputation and personalized product introduction from the sales team." - Oliver Görgl (EiMSIG)

EiMSIG® is a family owned and operated business focused on producing home security products to provide high level burglary protection at a low energy cost. The corporate philosophy ensures that *"Every customer is an individual whose trust and respect we must earn by careful work."* The products are not *"just another alarm"* but are tailored to individual needs of the customer. EiMSIG® smart home alarm system is distributed throughout Europe in Germany, Austria, Switzerland, Netherlands, Belgium, and Luxembourg and mainly purchased by private homeowners.

EiMSIG smart home is the logical development of the classic alarm. The EiMSIG® App (iOS, Android) for smartphones extends the ease of use significantly. EiMSIG smart home has the ability to control lighting, blinds, heating, electrical equipment and integrated webcams. The new touch panel is 100% compatible with all other EiMSIG® components. Instilled with the confidence to protect, EiMSIG® smart home alarm must ensure industry standards.

Key Requirements

With the advancement of the Internet of Things (IoT) the number of network reachable devices has rapidly increased. Likewise, application development and development frameworks have evolved, creating a significant demand for security solutions.

"The quick-app-development model has provided thousands of insecure applications..."

as noted in the ITBusinessEdge article "Why Mobile Apps Are Not Getting More Secure" suggests businesses should consider an added layer of security with network reachable products.

The smart home system is a low energy, cost effective solution for home alarm systems so minimizing the energy usage was also important to EiMSIG®. The hardware and software solutions needed to achieve these goals.

Solution

Seeking a solution that would work easily and efficiently lead to wolfSSL. *"The initial contact with the sales team was both informative and valuable."* The implemented solution derived by the engineers and sales team at wolfSSL met the product needs. The wolfSSL library supports the hardware acceleration properties of the Microchip PIC32, the microcontroller used by the EiMSIG® smart home alarm system.

The wolfSSL SSL/TLS and crypto libraries are among the smallest footprints available in the market today aligning with EiMSIG's energy conservation goal. The wolfSSL team actively develops the SSL/TLS library and maintains accurate documentation to make implementations easy and efficient.

Results

Due to the Microchip PIC32 microprocessor hardware acceleration ability, the implementation is in both hardware and software, increasing speed and efficiency. The wolfSSL library supported Microchip making it easy to add the functionality.

The EiMSIG® smart home system functions as both an isolated system and a network accessible system. In either case, wolfSSL secures the SSL/TLS data transfer layer from unauthorized access.

For More Information

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