Medical Cybersecurity for medical Analysis Equipment

Our customer is a leading international company in the field of medical technology and develops medical analysis equipment for measuring blood sugar in the point-of-care area. These devices have been sold on the international market since 2008. konplan was commissioned as a partner for the entire software development and lifecycle management of the equipment. This includes the embedded Linux operating system, corresponding applications, and other items.

Four major lifecycle software releases

Initially, a comprehensive weak point and risk analysis was conducted to identify the most important areas for further software development. The results were then classified, weighted, and prioritized by evaluating cybersecurity assessments and penetration testing reports. Afterwards, we were able to make the first suggestions for improvement and present the software security concepts for the most important areas. This was followed by implementation and testing on the embedded Linux system and the corresponding applications.

During the project period of approximately three years, there were a total of four major lifecycle software releases with significant optimizations in the area of cybersecurity. This allowed the improvements to be implemented quickly and gave customers time to update their affected processes, use cases, and employee training. Additional testing of the improvements including subsequent penetration tests were also successfully performed.

More market success through cybersecurity improvements

Outsourcing the entire software development to konplan improves market success for the customer's products because they comply with a high level of various cybersecurity requirements. Our successful cooperation was always focused on providing the highest quality and reliability.

Result

- Cybersecurity requirements of the client's customers can be met (USP to market competitors)
- Regulatory Compliance
- Strengthening of market position

Technologies & Methods

- C, C++, Bash, Python
- Embedded Linux
- POCT1-A

Scope of services

- Requirements analysis
- Concept creation and architecture
- Implementation, testing and documentation according to IEC 62304 and ISO 13485

3 years

9 employees (konplan)

Analysis & Idea Generation, Conception, Development through Support & Operations

Further information:
www.konplan.com