

IoT – Internet of Things

Requirement analysis and specification of an IoT gateway; use of “home automation”

Customer requirements

The project was concerned with the realization of a connectivity solution for the client’s heating systems and the service offer resulting from it. The control and configuration of the heating system by the customer with a smartphone was one of these services. Other functions, such as remote maintenance and remote diagnosis for heating technicians and the use of big-data applications for future services, were also to be implemented. Based on these topics, the requirements relevant to the IoT gateway were to be recorded. Among them were the implementation of a secure network connections or a secure update mechanism to prevent abuse of the gateway. To minimize field work costs for service technicians, the respective tasks were to be taken into account in the requirements elicitation.

comlet solution

The requirements of the mentioned topics that were derived from the product management’s use cases and those that were based on company guidelines and prescriptions were defined in workshops and technical papers as requirements.



Based on the requirements the test cases for manual and automated tests were defined ensuring that all requirements were addressed. A further focus was the elicitation of the security requirements. In this regard determinations for encrypted network connections or the update of the dual-boot have been made. A concept for a watchdog mechanism was also designed during this process.

A further goal was to design the initial setup process straightforward. Therefore the process was specified in detail considering the behaviour of the app, the gateway’s LEDs, the use of QR codes etc.



Technology used

MS Office, Confluence/JIRA

