

# Smart Home & Building



## Feature development and maintenance for a backend system in the home automation domain

### Customer requirements

The backend of a home automation system, managing intelligent devices in a smart home, needed to be refactored in several areas. The most important topics to be addressed were the data model, the persistency and the system stability.

Adjustments were made to increase system performance and improve debugging capability.

In addition new features for the back-end system should be implemented.

### comlet solution

The gateway data model was refactored to optimise performance and stability. New functionality such as backup&restore, push notifications or activation/deactivation of central units have also been specified and implemented.

To ensure the quality of the backend software an environment for automaterc tests was implemented. To further increase the quality these tests were integrated into a countinuous integration environment.

To simplify the deployment and update process of the software, advanced automation mechanisms were implemented. Handling different versions of the backend's operating system as well as the integration of consistency and dependency checks need to be addressed in this regard.

The technical changes were accompanied by additional process adaptations such as a web-based source code review process.



### Technology used

Debian Linux, Jenkins, python, python unittest, Java, bash, svn, Redmine, Review Board, MySQL, Apache Cassandra

