



# Household Appliances

## Development of a data lake for sensor data from household appliances (IoT)

For a globally operating, highly profitable telecommunication corporation, comSysto is developing a big data platform for the processing, provisioning, analysis, and visualisation of household appliance data.

### Requirements

- Development of a central data lake as well as the connection of this to the existing business warehouse (SAP)
- Anonymisation of user data
- Complete automation of the cloud infrastructure on the basis of AWS
- Design and development of prototypes for the evaluation of various solutions
- Go live with the selected solution
- Consumer data enabling for data-driven product development
- 360° Customer View
- Self-service BI

### Technologies

- Cloud infrastructure: Amazon Web Services IaaS and PaaS offers (e.g. EC2, S3, Lambda, Cloud Formation, Cloudwatch)
- Data Engineering: Hortonworks Ambari, Hadoop
- Software Engineering: Java 8, Python, Apache Spark
- Data science: R, R Studio, Zeppelin, SAP Vora, SAP Hana
- Continuous Delivery: Git, Gradle, Bamboo, Shell scripts

### Procedures and Methods

- Introduction and training in the use of open source-based software architectures, flexible and highly automated cloud infrastructure as well as continuous delivery processes
- Coaching for development with Java, Python, Spark
- Support for the cloud transformation
- Final industrialisation, go live, and introduction of the complete solution

### Advanced Analytics/Data Science

- Visual and statistical data exploration
- Data curation such as extrapolations when values are missing
- Pseudonymisation of personal data
- Extraction of important KPIs for the technical departments