



## REFERENCE

# Freenet AG

## Big data in action for a larger customer base

### Project Environment

Mobile communications are one medium. Digital life however is so much more: it entails emotions, culture, individual opinions and even a philosophy, if you will. With that in mind, the Freenet Group sees itself also as a digital lifestyle provider. Germany's leading provider of mobile communications services wants to appeal to its 12 million customers with its innovative digital applications and products on a long-term basis. Additionally, Freenet not only markets the services of other mobile providers under its own name, but also provides access to television of the future via freenet TV, one of its own many services. The Freenet Group has Germany's largest network-independent sales platform for mobile devices available, with roughly 600 of its own retail shops and more than 6,000 other distributors. The company's focus in marketing lies primarily on retail business with private households. The peculiarity of this target group is that it is exceptionally volatile and enormously heterogeneous, and this can pose great challenges in reinforcing long-term customer loyalty. However, Freenet was aware of the untapped potential that was hidden in the company's data collection. It was time to capitalize this "treasure" effectively! Since 2015, together with the Analytics & Data professionals at Axians, the appropriate possibilities of Big Data have been explored to develop concrete business cases.

### Project Requirements And Goals

One advantage of data lies in the fact that data sources, in contrast to e.g. oil springs, never dry up. Data are renewable resources, so to speak. Due to their sheer mass alone, they can help understand the world in its complexity, but only if one can manage the task of interpreting the inherent correlations. The Freenet Group's most crucial points were measuring central business processes, enhancing the product range and explaining anomalies, wherever they may occur – based on all available data. In short, data was to be translated into recommended actions, with the goal of highly personalized customer approach and offers. This request put a number of challenges on Axians' agenda. The relevant data came from texts, multimedia files and numerous other sources, and the analyses not only required speed of action and high agility, but also a form of presentation that would be easy and quick to understand. In addition, strict observance of data protection regulations was in order, and last but not least, an innovation like this, which would give the entire Freenet Group more possible courses of action, more transparency and ultimately more idea potential, would also have to be accepted and put into practice by all users.

### TASK/GOAL

- Measure and develop business processes and explain anomalies based on all available data
- Faster and more exact analysis of larger data volume
- Translating data into recommended actions
- More personalized customer approach and products

### SOLUTION

- Developing an analytical infrastructure with Spark- & Hadoop cluster and analytical servers based on R/Python with browser-based front ends
- Introduction of data storytelling with interactive markdown documents (HTML)
- Enriching customer data with unstructured information (customer contact, questions, complaints, etc.)
- Modeling customer movements (Churn predictions)

### BENEFITS

- Significant reduction of the contract termination rates
- Significant reduction of waiting times for customers at the call center
- Convenient data overview (due to Analysis Cockpit) down to individual processes
- High integration and acceptance throughout the entire company – from the board members to the marketing department

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## Implementation

Axians, together with Dell EMC2 and Pivotal, created for Freenet on the one hand a platform for ad hoc-analysis of questions in everyday business. On the other hand they developed an efficient tool for score calculations predicting customer behavior and for optimizing the marketing in a way that is more specific to the customer. As a basis, an analytical infrastructure with Spark- & Hadoop clusters was used, as well as analytical servers which were based on R/Python with browser-based front-ends. Based on this system, customer behavior modeling is conducted, e.g. concerning Churn, upselling potential and customer needs, as well as categorization of unstructured customer correspondence. Using data storytelling, the recipients are given a better understanding of the analysis findings through interactive and reliably updated information, as well as through reproducible markdown documents. Through flexible analysis tools (Analysis Cockpit), the departments involved can easily access mass data which were dynamically aggregated and graphically prepared to their specifications. These act as a basis for analyses in the departments and move forward data-driven thinking and decision making. The greatest strength here are the easy handling and high speed along with the possibility to freely combine all interfaces, to link and process data as well as the graphic processing and presentation of data in a dynamic web framework with different levels of access rights.

## Project outcome

One of the best effects is the integration of the solution into the whole company, which can be seen to grow more effective by the day. Fresh ideas based on new aspects are put forward, discussed and implemented, from the board members all the way to the marketing department. Dr. Florian Johannsen, team leader in Analysis and Data Mining at Mobilcom-Debitel summarizes the project as follows: "With this project, the Freenet Group takes a groundbreaking step towards being a data driven company. We are now able to connect impromptu data deliveries of several 100 GB to existing data sources and analyze them within a very short amount of time. This is of course only possible due to our great connection with our existing infrastructure (e.g. DWH). With Axians, the ideal team is at our side. From the first PoC to the accompanying communication and presentation and the committed implementation – this professional cooperation at eye-level is simply a pleasure! Not only were our data translated into business cases, Axians were also excellent translators for our ambitions towards the manufacturers, e.g. Dell EMC2 and Pivotal. Therefore, this concept was perfectly tailored to our needs: the tools are collaborative to the maximum for optimal teamwork and all systems are closely intertwined. We are planning to expand the personalized customer approach on all levels, in addition to modelling the advertising expenses in correlation with a holistic view on customer transactions." All in all, this sounds like a great path into the digitalized future, as stated above: the resources needed for successful concepts will likely never run out with Big Data.

## CUSTOMER INFO

**freenet** GROUP

**Company:** freenet AG

**Industry:** Telecommunications

**Location:** Büdelsdorf

**Founded:** 1999 | 2015 Freenet AG

**Dimensions:** Largest network-independent mobile communications provider in Germany with about 12 million customers. The Freenet Group has 11 sites with altogether about 4.400 employees. Additionally, there are over 550 Mobilcom-Debitel shops and 41 Gravis Stores.

**Homepage:** [www.freenet-group.de](http://www.freenet-group.de)

## ABOUT AXIANS

Axians in Germany is an agile corporate network of specialised ICT service providers and software manufacturers under the VINCI Energies global ICT brand Axians. Direct proximity to customers is achieved through a comprehensive presence in 27 cities.

The network guides its customers – private sector firms, local authorities, public institutions, network operators and service providers – throughout the entire ICT process chain. The core expertise of IT solutions, IT security, network infrastructure and network technology is supplemented by the company's own industry software, supporting customers for all requirements of core ICT and the digital transformation. By combining consultation, implementation, service and operation, customers can exploit technologies and applications appropriately, optimise processes and realise their digital business strategies sustainably. With 1,850 specialists, Axians in Germany can respond to every challenge with a customised solution and the best team from the network.

## CONTACT INFORMATION

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