



Grid & Co.

# SOFTWARE FOR E-CHARGING STATIONS

With „Gridware,“ Grid & Co. provides open and manufacturer-independent software for setting up and operating charging station infrastructures. With the Software-as-a-Service offer from the Open Telekom Cloud, electricity providers for e-cars can centrally manage a freely scalable number of charging points in real time.

The configuration, control and monitoring of the charging stations is done via a browser. Grid & Co. uses the standard Open Charge Point Protocol (OCPP) for communication between the charging station and Gridware. This gives e-charging providers a management tool that allows them to control and network the systems in real time.

Grid & Co. equips each charging station with a SIM card that can be used to encrypt and securely transfer data on operating status, individual charging processes and billing information to the public cloud via Telekom's mobile IP Virtual Private Network (VPN). Statistics provide information about charging processes and capacity utilization at any time. Users of the charging station pay for the charging process by credit card, PayPal or debit card.

## AT A GLANCE

**The Task:** Since it's difficult to predict how the e-car market and the charging station infrastructure will develop, Grid & Co. needed a development and operating platform that is highly scalable and can be expanded at will in the shortest possible time.

**The Solution:** With the Open Telekom Cloud, Grid & Co. has a platform on which it could develop and provide the software. The operation of the software and the processing of all data also takes place in Telekom's public cloud.

**The Advantages:** The Open Telekom Cloud offers a wide range of features for operating the software. The platform is highly scalable, multi-client capable and can be expanded as required in the shortest possible time. Telekom's twin-core data center guarantees data security at the highest level, is highly available and meets current data protection requirements. Grid & Co. is also a partner in Deutsche Telekom's SoftwareBoost program.



LIFE IS FOR SHARING.

## THE CUSTOMER: GRID & CO.

Grid & Co. is a consulting and software company in the energy, mobility and sharing environment. On the basis of its own Gridware software framework, Smart Business Networks can be set up that network users and systems in real time, harmonize processes and bill them. With experience in networking the leading German mobility and sharing systems, as well as connecting e-charging stations that meet industry standards, Grid & Co. has already successfully implemented national and municipal projects.

## THE CHALLENGE

It's virtually impossible to predict the speed at which the e-car market will develop. It's true that the number of newly registered e-cars in 2018 rose to over 36,000, an increase of around 45 percent compared to 2017. However, the market share was still just over 1 percent. This development is similar when it comes to the number of charging stations for e-cars. Grid & Co. was therefore faced with the challenge of having to access the most flexible and scalable computing, storage and database capacities possible in order to operate its software for e-charging stations. If the e-car market booms in the short term, the number of e-car charging stations will increase significantly within a short period of time.

Since, in addition to the large energy providers, the majority of regional energy suppliers offer their own electricity for e-cars or provide retailers and municipalities with charging stations, the software must also be multi-client capable so that even the smallest operators with only a few charging stations can efficiently manage their infrastructure. Last but not least, e-car owners expect to be able to pay for their electricity charging using all common methods such as credit and debit cards, PayPal and direct debit.

## THE SOLUTION

Grid & Co. has decided to offer Gridware to the charging station operators in the Software-as-a-Service model. Since the usage and billing platform is multi-client capable, the customer data of each charging station operator is created and processed separately in the Open Telekom Cloud. Customers manage their charging points via a browser frontend, which they can use to control each charging point separately. They can therefore implement individual price models for each charging station location. Grid & Co. equips each charging station with a SIM card at a fixed price per month.



Georg Schmitt, founder and managing director of Grid & Co: „With „Gridware“, the Berlin-based company offers an open and manufacturer-independent software for the development and operation of charging station infrastructures.

The SIM card sends status and statistical data as well as billing information for the individual charging points to the Open Telekom Cloud via a mobile VPN connection.

## THE CUSTOMER BENEFITS

Since the computing and storage capacities in the Open Telekom Cloud are flexible and highly available, Grid & Co. can grow agilely with the market. Each new customer can be set up within a few hours and new charging points can be integrated into the customer infrastructure in the shortest possible time. The number of charging points is irrelevant. Operation is possible and profitable from just one charging point. Grid & Co. was able to develop the entire software in the Open Telekom Cloud. It wasn't necessary to build up its own resources for this. Since the usage and billing platform is operated in a twin-core data center in Germany, the customer and billing data meet European and German data protection requirements. And as a partner in Deutsche Telekom's SoftwareBoost program, Grid & Co. receives credit for IT resources, technology support and digital marketing support.



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