

"With Ambika from T-Systems, we were able to build an absolutely innovative solution for the young, highly dynamic e-mobility market in record time."

Mathias Laubenstein, Head of Technology, Innovation, and Operations, Comfort Charge

Against the backdrop of sustainability efforts and increasing independence from fossil fuels, e-mobility is steadily gaining importance in Europe. Germany set a new record in 2021 by registering 356,000 fully electric cars. And the trend continues, not just among consumers but also among companies that are increasingly adopting clean electromobility.

A high-performance charging infrastructure is a crucial factor for the long-term success of the concept. Many providers with different backgrounds are entering the market. However, the infrastructure means much more than just bolting on wallboxes or installing charging stations. Behind the charging infrastructures are complex processes that require intelligent systems to match demand and supply.

The lack of uniform standards and processes poses a significant problem. The young, dynamic market is reminiscent of a kind of electric Wild West, where many vendors merged proprietary backend IT, hardware, and processes to manage the complexity.

Comfort Charge, a startup from the Telekom Innovation Pool, is taking a completely novel path in this market environment. Mathias Laubenstein, Head of Technology, Innovation, and Operations, "We want to offer a leading solution in terms of processes and technology for charging infrastructures from a single source - on the basis of open protocols and in cooperation with our partners."

This meant that Comfort Charge also wanted to take the lead in service quality. The company already monitors its managed charging stations with a high frequency and achieves extraordinary availability figures.

The solution from Comfort Charge covers the complete lifecycle of the charging stations (in accordance with the well-known ITIL principle): from planning, installation, and long-term operations, the company consolidates all the related services on a single platform. On this basis, Comfort Charge rolls out its own charging infrastructure, manages its customers' installations, and offers them to other charging providers as a white-label solution.

Managing a platform for charging infrastructure is similar to managing telecommunications infrastructure. The right data must be in the right place at the right time. This means IT plays an essential role in Comfort Charge's business model. The company relies on a modular platform from T-Systems as its technical solution: Ambika.

At a glance

- Implementation of a novel approach for the end-to-end management of charging infrastructures for electromobility
- Lack of standards and protocols
- Best-of-breed: Interconnection of various proprietary, marketleading tools
- · Integration for automated data exchange
- · Use of Ambika based on ServiceNow
- · Pioneering solution for charging infrastructure management
- · Can be scaled for further growth
- Audit compliance
- · Flexibility for a dynamic business environment
- · Efficient, automated processes for end-to-end management



Reference in detail

The challenge

"We didn't want to develop a new solution for the lifecycle management of charging infrastructures from scratch," explains Laubenstein, "but instead pursue a best-of-breed approach, utilizing solutions that were available on the market. And under no circumstances did we want to take a conventional, proprietary path by building custom-developed add-on functions on top of a backend system." This "mash-up" approach was intended to enable a rapid time-to-market, provide flexibility to respond to changes in a dynamic market (technical adaptability), and most importantly, for a start-up, keeping costs under control. Scalability was another crucial requirement of the system. Since Comfort Charge is active in a regulated market, ensuring audit compliance was another important factor that had to be considered in the design of the management platform.

The central challenge here: How can the various contributions by the partners be integrated to create an end-to-end solution? How can communications and data be provided without interruption?

The solution

"Ambika from T-Systems proved to be the ideal central hub for the different services, regardless of which language they speak," sums up Laubenstein. Ambika is based on ServiceNow and is provided fully scalable from a ServiceNow data center in Germany. ServiceNow's strength lies in its incredible flexibility, which enables it to connect nearly any system and digitalize and automate any process quickly – thanks in part to the combination of turnkey modules and low-code capabilities of the platform.

As such, Ambika formed the foundation for the central hub that enables the rapid exchange of data – for all lifecycle phases of the charging infrastructure. "We use Ambika to both collaborate with our partners for the planning and installation of the charging stations and manage our operations," says Laubenstein. At the same time, Ambika makes it possible to integrate additional systems at any time. Due to the operation in the cloud, scaling is easy.

Customer benefits

"With Ambika, we are independent of proprietary systems. We have created a flexible platform that goes in an entirely new direction and gives us the dynamism we need as a startup in a young market," summarizes the Comfort Charge manager. "With our management platform for charging infrastructure, we have built a pioneering industry solution that we can now offer broadly on the market. We are poised for further growth."

Ambika avoids manual intervention, the use of Excel spreadsheets, other databases, and emails that are often needed to manage processes. "The high level of automation and workflows in ServiceNow provide us with the efficiency and speed that we need. Other tools can't do that." Automated controls and simple user navigation also improve the quality of the results.

In addition to smooth-running processes, Ambika also effortlessly provides transparency for business operations, thanks to its centralized data storage, and - closely related to this - ensures audit compliance for supervisory authorities. Last but not least, the maintenance costs are at a level that is manageable for the startup.

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