German cloud for new dementia therapy app

Denmark-based Brain+ uses Open Telekom Cloud to enter new markets

Reference project:

"Open Telekom Cloud has given us the perfect stepping stone for offering our dementia therapy app in Germany and the UK as well."

George Webberley, Tech Lead, Brain+

Dementia slowly develops into a widespread illness - especially in aging societies. Roughly 55 million people around the world live with the illness. In Germany, the number of people with dementia has roughly doubled since 2001 – it is currently at 1.8 million. And dementia still has no cure, which is why prevention and early therapy play a crucial role.

Over the past several years, cognitive stimulation therapy (CST) has become a highly discussed topic in dementia therapy. The method was developed in the UK in 2003 and has since been clinically validated for its effects: The disease's progression measured as cognitive decline was able to be slowed down with up to 6 months in patients with mild to moderate dementia. Cognitive stimulation therapy has been recommended for global implementation by the World Alzheimer's Association and has been a guideline therapy in Germany since 2016.

Cognitive stimulation therapy is a structured exercise program that promotes thinking and memory. A mix of conversations, word games, puzzles, music, images, etc. are used to stimulate mental activity. Usually between five to seven people with dementia participate in a 14-week CST group course led by one or two CST trained therapists.

Copenhagen-based scale-up Brain+ assists CST therapists with an in-house developed app called CST-Therapist Companion. The app is based on the latest scientific findings and supports conducting CST sessions by providing materials for exercises (from a content management system) to shorten preparation time and facilitate consistent delivery of the therapy. Furthermore, it organizes the flow of individual sessions. This app gives the therapist a comprehensive tool that manages, facilitates, and optimizes CSTbased dementia therapy. Since the product release at the start of 2023, Brain+ has already closed the first sales contracts on the Danish market. As a next step, the company made a culturally adapted German version of the app which was introduced on the German market with the ambition at a later point in time to get approval of the product as a digital health application (DiGA). To meet the strict guidelines for the German digital health market, the team wanted to provide the backend for its app from a German cloud, and Brain+ chose the Open Telekom Cloud. In addition, with a growing focus on the UK market, Open Telekom Cloud can provide a framework which will allow the team to scale to the UK and later to the rest of Europe.

At a glance

- Dementia therapy app, released in a first product version in Denmark and Germany
- Laying the foundations for acceptance as a digital health application (DiGA)
- Meeting data security and data protection requirements in the cloud
- Transferring the backend to the Open Telekom Cloud
- Full scalability and compliance with regulatory framework conditions
- A basis for addressing the German market, scale in the UK and later expand to other European markets
- Fully scalable
- Supports cloud-native methods
- Support as a Circle partner

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Reference in detail

The challenge

Several legislative amendments over the past several years have created a market for health apps in Germany (known as DiGAs). Once a health app is properly listed as a DiGA, therapists and doctors can prescribe it – and the costs are covered by health insurance.

But in order for a new health app to obtain DiGA approval, it must meet the DiGA Ordinance's (DiGAV) ultra-strict data protection and IT security requirements. For this, an approval from the Federal Institute for Drugs and Medical Devices (BfArM) is needed. This institute evaluates product criteria such as quality, functionality, data security, and data protection.

"Against this backdrop, using a U.S.-based cloud as an operating platform for the backend was not an option for us," explains George Webberley, Full-Stack Developer and Tech Leader at Brain+. "We wanted to position ourselves appropriately for the German and European market from the start."

The solution

To establish a basis for being compliant with regulatory requirements in Germany, the UK and the rest of Europe, Brain+ migrated their backend to the Open Telekom Cloud. "This is where we operate our Content Management System and use services such as the Relational Database Service, Elastic Cloud Server, Elastic Volume Storage, Caching, and Backup to do so." In addition, we also use basic services that are crucial for using the cloud, such as the Virtual Private Cloud, Elastic Load Balancer and the Elastic IP Service. Brain+'s application landscape is based on modern, cloud-native technologies such as microservices, which is why the Kubernetes Service – the Cloud Container Engine – was also important. In 2022, Brain+ developed CST-Therapist Companion app on Open Telekom Cloud. Since its release the app has been running on the German cloud which forms the basis for customer access to the solution.

Customer benefits

Open Telekom Cloud enables Brain+ to expand into Germany with its offerings and tap into the market potential for dementia. The platform allows Brain+ to deliver the services they offer in compliance with German regulatory requirements for health apps, i.e., including comprehensive security and protection for confidential and sensitive data. This also sets the stage for continuing to develop the app's functionality – and for eventual approval as a DiGA.

Open Telekom Cloud offers full scalability for further business growth, fully supporting cloud-native technologies and expansion into other markets. By being listed as a Circle partner, Brain+ can also take advantage of the benefits of the partner ecosystem, e.g., assistance with optimizing the architecture and personalized advising.

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