

"Thanks to T-Systems, our Magenta Speakers can count on reliable, scalable application operations in an agile market environment."

Bernd Weinmann, Head of Operations "Smart Voice Hub", Deutsche Telekom AG

Digital voice assistants are all the rage. They make it simple to control many devices around the home, provide direct access to information, take phone calls, and play music. With the Magenta Speaker, Deutsche Telekom has created an alternative to Alexa, Siri, and the rest. Just say "Hello Magenta" and the digital assistant carries out its tasks reliably. But robust back-end IT isn't all that's needed for all of this to work seamlessly. It also takes a dedicated team working in the background to continually enhance the capabilities of the smart speaker, so it gives its owners a great user experience – with new services, skills, and options. And it takes agile methods to be successful in this dynamic competitive environment: there's no way around DevOps, the only feasible method for achieving change quickly.

At a glance

- Early involvement of application operations during the software development phase
- USPs through innovation in a highly contested market
- Collaboration under the DevOps model
- T-Systems ensures scalable, stable application operations in an agile environment



Reference in detail

The challenge

With the Magenta Speaker, Deutsche Telekom is mixing up a market that is characterized by high agility and strong competition. Users expect a steady stream of new services, implemented as "skills". Agile software development is essential in this environment to give customers a true alternative and be successful on the market. But development isn't everything. The term "DevOps" indicates where the journey is going: toward agile software deployment that treats development and operations holistically. Agile development must be closely intermeshed with agile operations from the cloud. This concept challenges the established and separate procedures for development and operations. The DevOps world runs at a different pace, requiring new abilities of both developers and operations staff. To implement DevOps for the Smart Speaker, the responsible business unit at Deutsche Telekom chose T-Systems as its service partner for the cloud-native operation of the voice back-end. The objective: stable, scalable application operations in a highly agile international environment where constant change is becoming the norm. Growth is another factor: in addition to the Magenta Speaker, the back end must reliably supply other devices in other European countries with "intelligence".

The solution

"In a DevOps approach, it is crucial to get the operating teams involved in the development project from the very beginning," explains Marion Cremer, the project manager at T-Systems.

There are two ways to achieve this important interchange organizationally: either development and operations both come from the same source - that is, are performed by the same people - or the development and operations teams are organizationally separated and work together closely on the continual development and integration based on DevOps methods. "Our customer Deutsche Telekom chose the latter DevOps approach, in which one team is responsible for development and a second team ensures highperformance operations in an agile environment," adds Peter Reinecke, Head of Services at T-Systems. T-Systems is responsible for operations, including monitoring of the services, as well as coordinating the network of the involved partners, particularly third parties. "We have a multitude of different players and it's our job to make sure things keep running smoothly," says Marion Cremer. The service provider makes sure that operations remain stable even against the backdrop of continual updates, ensuring that end users can continue using their speakers at all times. This includes the deployment of new versions received from development and rapid troubleshooting in the case that an update doesn't run as desired or other disruptions occur. This would not be possible with conventional, ITIL-based operating methods; agile operations are needed in close coordination with development. Due to the large number of players involved and the wide range of concurrent developmentsmany of the partners enrich the voice assistants with their own skills-a simple scrum approach is not expedient. Project collaboration is managed using the Scaled Agile Framework (SAFe), which coordinates the development streams.

Customer benefits

With its DevOps approach for the Smart Speaker, Deutsche Telekom is betting on agile IT deployment for an agile market environment. With the help of T-Systems, Deutsche Telekom successfully entered the market for intelligent voice assistants. As a result, the business team at Deutsche Telekom can concentrate fully on product management and the development of business innovations. Development and operations work hand in hand – through teams that are familiar with the DevOps methodology. This approach makes it possible to realize business requirements of the market and customer demands for new services quickly. Customers get an excellent user experience that includes both innovations and reliable availability of services. Using an agile environment, T-Systems has been working since June 2019 to ensure that the voice back-end meets the needs of the mass market. At the same time, the platform – and the operating team along with it – is completely scalable. When Deutsche Telekom wants to enter new national markets, the voice back-end and operating capacities will already be available.

Other benefits:

- Simple international rollout of voice-based solutions
- · Operating model from a single source with permanent contacts
- Highly competitive offering
- Coordination of the partner network
- Central service desk in English and German

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