Reference Booklet

T Cloud Public

Sovereign.
Built for trust
and compliance.

Scalable.
Infrastructure that
grows with you.

Reliable.
High availability
for your business.



Turning compliance into confidence with T Cloud Public

Digital transformation is no longer just about scalability and innovation. Today, organizations must balance technological progress with data sovereignty, regulatory compliance, and operational resilience. This is exactly where T Cloud Public creates value.

As recognized by trusted analysts such as ISG, T Cloud Public is Europe's leading public cloud platform and a key competitor to US hyperscalers - combining cloud innovation with digital sovereignty, security, and regulatory compliance. Organizations benefit from cloud-native innovation, AI-ready services, and flexible scalability while retaining full control over their data in European data centers and under European regulatory frameworks. T Cloud Public is designed for organizations that seek performance without compromising on sovereignty, security, or transparency.

The customer stories presented in this booklet demonstrate how companies and public institutions across industries are turning these principles into measurable business outcomes. Healthcare providers are leveraging artificial intelligence to reduce administrative workload and improve efficiency. Educational innovators build flexible digital learning environments while meeting strict regulatory requirements. Industrial companies accelerate digital transformation and modernize production while maintaining data governance, and software providers expand into highly regulated markets by offering their solutions in a scalable and compliant way.

We hope the customer examples in this booklet inspire new ideas and demonstrate how cloud and AI can deliver tangible business value — securely, responsibly, and at scale.

Enjoy reading. The next success story could be yours.

Contact us now!

Online contact form

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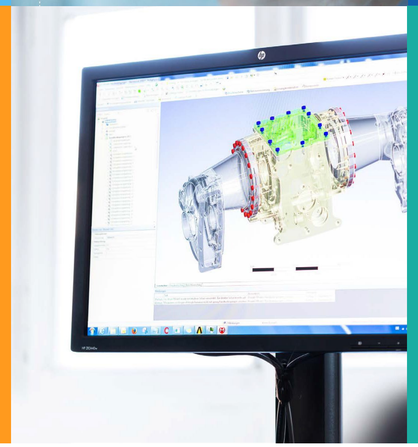
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rku.it GmbH empowers 6,500 users on T Cloud Public by harnessing UiPath with sovereign, secure cloud power

Mobility & Critical Infrastructure

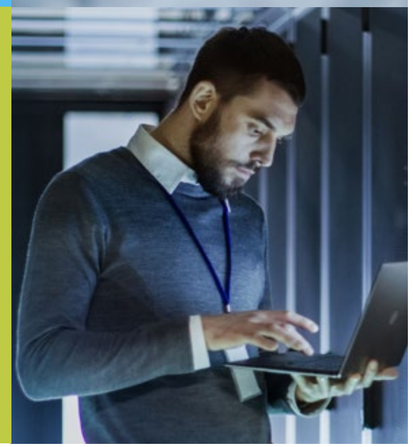


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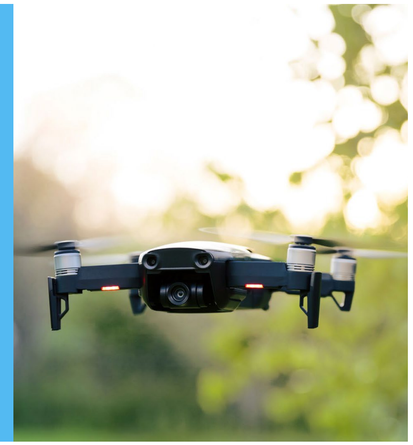
Randstad Deutschland secures HR data on T Cloud Public ensuring 100 percent GDPR-compliance

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Enterprise Digital Platforms



AI for the future of education

DeutschlandGPT runs BildungsLLM, a specific educational product, on the T Cloud Public



Reference project:

GPT

“The T Cloud Public is the perfect operating platform for BildungsLLM. Its sovereign attributes satisfy our high demands for security and control, enabling us to offer our customers a complete package for modern education.”

Leonhard Benkert, CEO DeutschlandGPT

Germans have long recognized artificial intelligence as a key future technology. After all, one thing is certain: Without AI, Germany runs the risk of falling behind the international competition. Despite this, one-third of companies in Germany are intentionally avoiding AI – primarily due to concerns regarding data protection, data security, and data sovereignty.

The heart of this problem: The leading AI providers are headquartered in the U.S. or China, and primarily process data on servers abroad, where sensitive information could be intercepted or stored and fall into the wrong hands. Still, many people use these solutions, because they promise huge advances in productivity and efficiency.

DeutschlandGPT wants to position its AI solutions as an alternative to the established American and Chinese providers – artificial intelligence Made in Germany, for Germany. The software company from Germering, just outside Munich, has specialized in developing a sovereign AI platform. “Our mission is to create secure, independent AI solutions that release creativity, promote innovation, and offer long-term solutions to the challenges we currently face,” explains Leonhard Benkert, CEO of DeutschlandGPT.

AI by DeutschlandGPT means that sovereignty, security, data protection, transparency, and competent support are all included – certified in accordance with ISO 27001. The company’s AI products combine the performance of modern AI with uncompromising protection of digital self-determination. They make AI trustworthy and sovereign. In addition to businesses, the company’s customers also include private individuals and the public sector.

The education system in Germany is undergoing rapid changes: On one hand, nearly every school is suffering from unfilled positions, a shortage of teachers, and canceled classes, while on the other hand, requirements are changing constantly. Teachers have to integrate new learning concepts and teach new skills, while also using modern media. The potential of artificial intelligence for the forward-looking evolution of education is evident: AI can provide uncomplicated support for classroom teaching and school projects, reducing teachers’ workloads. Students learn about the professional use of modern IT, which will benefit their further education or vocational training.

With its current project, “BildungsLLM” (Bildung = education; LLM = large language model), DeutschlandGPT is going back to the roots of its parent company, Titanom, a software developer for the education sector. “Our goal is to merge our years of experience in education with our expertise in AI development, to provide a didactically high quality language model to learners in Germany.”

At a glance

- Novel LLM for school education in Germany
- Goal: Faster go-live for the new service
- Meets the extensive regulatory requirements in the education tsector
- T Cloud Public as a sovereign operating platform
- Didactic, specific BildungsLLM runs in the AI Foundation Services
- Simple access via API and integration options for a variety of learning platforms
- “Guardian” features and anonymous use
- Meets the extensive regulatory requirements
- Full scalability and competitive, pay-as-you-go pricing model
- Sustainable operations
- Pioneer: An innovative tool for modern school education
- The leading sovereign European cloud is perfect for the legally compliant, scalable operation of AI services in the education sector.

How Deutsche Telekom solved it

In early 2025, DeutschlandGPT developed BildungsLLM, a basic “didactic” model, specifically for use in German schools. In addition to being tailored to the didactic requirements of education, it has also been optimized for the German language. It is based on an enhancement of the Llama 3.3 70b open-source model, which DeutschlandGPT implemented by feeding its internal data, along with synthetic data, directly into the new model. Interactions with BildungsLLM are not saved, which ensures the anonymity of students. Guardian features for ethically correct use have been integrated in the technical infrastructure. These guardian features are a key security element of the product. They form the first line of defense against improper and dangerous prompts. They identify potentially malicious content automatically and block it before it is processed. This not only safeguards the model, but also – and above all – protects students against incorrect responses and inappropriate answers.

The BildungsLLM has been offered as part of the AI Foundation Services from the T Cloud Public since April 2025. The T Cloud Public gives DeutschlandGPT and its customers a secure, sovereign, scalable operating environment in Deutsche Telekom’s high-security data centers in Magdeburg and Biere. As such, the BildungsLLM satisfies all legal requirements. It can be used and integrated in existing learning platforms easily, thanks to an API, creating an ideal package for the next generation of reliable education.

The reference in detail

Customer pain points

Widely used LLMs like GPT-4 are mature, accepted by the market, and often used for business applications. However, there are several obstacles to using it officially in schools: The solution must be run in the EU, for instance. In addition, there must be transparency as to how the provider of the model (the AI service) handles the entered data. This is not usually the case among the publicly available American models. As such, suspicion is advisable. Students’ prompts could be saved outside of Germany, enabling tracking of individual students. Secondly, simply answering questions does not meet the demands of a proper education. Schools need a “didactic” LLM that helps students to develop solutions themselves and achieve their learning goals. It should support students in finding a solution instead of outputting finished answers – like it does in the business domain. What’s more, the underlying model must guarantee legal certainty for schools and offer “guardian” features that ensure that prompts and outputs satisfy ethical guidelines, security specifications, and content restrictions. Malicious and unwanted prompts must be blocked and inappropriate answers filtered.

DeutschlandGPT also faced another important question, however: Where should the finished model be run, legally watertight and sovereign, when it is finished? That’s where Deutsche Telekom and its T Cloud Public came into play.

Business impact

In the T Cloud Public, DeutschlandGPT has the operating platform it needs to meet the demands of the AI provider and its customers in the education sector: far-reaching sovereignty, data privacy, security, and scalability. The cloud ensures a rapid rollout of the service on the German market. The pay-as-you-go billing model in the T Cloud Public also supports DeutschlandGPT with expanding its business: Costs develop in parallel to revenues. The ISV does not need to worry about infrastructure management tasks and can concentrate fully on enhancing and marketing its pioneering service.

Since it runs in Deutsche Telekom’s sustainable data centers, the service’s carbon footprint is minimized. The data centers run on 100percent renewable energy sources and have received multiple awards for their sustainability, including the Platinum Award for green data centers. That means the AI model is also hosted in a sustainable manner.

BildungsLLM gives schools a tool that can raise education to a new level easily – legally watertight, compliant, and out of the box – capturing the potential of AI for school education.

Artificial intelligence – sovereign data

amberSearch uses the LLM serving service to create a package for companies with sensitive data



Reference project:

amberSearch

“With the T Cloud Public and the LLM serving service from the AI Foundation product family, we’ve found an elegant answer to the strict requirements our customers face – especially in regulated industries – about data sovereignty when using our AI services.”

Bastian Maiworm, Co-founder, amber Tech GmbH

“Just where did I put that information I really need right now?” That’s a typical everyday situation for many office workers. Searching for enterprise information robs them of nearly a half-hour of working time on average – every day. In such scenarios, artificial intelligence can truly contribute to higher employee productivity.

This is where amber Tech GmbH comes in, with its amberSearch service: “It’s our mission to break up the status quo of outdated B2B software solutions and give our customers the added value of ultramodern artificial intelligence (AI) and an intuitive user experience in our enterprise search products,” explains Philipp Reißel, co-founder and CEO of the AI specialist, which is headquartered in Aachen, Germany. amberSearch makes AI accessible even for companies that don’t have giant budgets or immense IT resources. A 30-person team at the company is now working on making internal information accessible quickly and easily. “We offer out-of-the-box solutions that are fast and easy to roll out, but still generate major added value for companies,” adds CRO (Chief Revenue Officer) Bastian Maiworm.

The business concept of using artificial intelligence for enterprise search – searching within a company’s internal resources – is winning people over: The name of the service has become synonymous with the company’s name. The AI provider has built a large customer base through various industries and different company sizes. Its customers include large companies like Schüßler-Plan, Zentis, DB Regio, and Landmarken AG, as well as SMEs in the mechanical engineering, biotech, and financial fields. Pharmaceuticals and financial companies face stringent compliance and security requirements; such companies are very careful to make sure that their internal data remains internal. The key phrase here is “data sovereignty”.

At a glance

- amberSearch, the leading AI-based enterprise search
- Cloud foundation for the business model
- Need to satisfy customers’ demands for data sovereignty
- Cover peak loads
- Provide amberSearch from the T Cloud Public
- Cloud bursting via the LLM serving service to mitigate peak loads
- Serves data sovereignty demands from sensitive customers in regulated industries
- Guaranteed high-quality AI services
- No fixed costs, needs-based usage
- Selection of different LLMs for enhancing the service
- Access to Telekom’s large partner/customer network
- The T Cloud Public is a trusted European cloud with ready-to-use large language models
- T-Systems stands for data protection-compliant, secure, trustworthy AI

The reference in detail

Customer pain points

“Setting up our own infrastructure management and hosting was out of the question – we wanted to concentrate on our customer projects and the evolution of our AI solutions, and avoid unnecessary fixed costs,” says Maiworm. With this in mind, amber Tech quickly decided to go with the cloud. “The T Cloud Public is a reliable platform that gives us the freedom to run our business. It scales with us and saves us from having to procure and run our own resources.” This also includes demands for GPU resources, to train and run their AI services. At the same time, however, the company is facing increased demands for data sovereignty: AI users, particularly financial firms, want to ensure that amberSearch has no way to access their data, even theoretically.

How Deutsche Telekom solved it

“The T Cloud Public gives us a simple, elegant solution to this as well,” explains Bastian Maiworm. In 2024, Deutsche Telekom launched the LLM serving services in the AI Foundation product family, a pool of ready-to-use large language models (LLMs) and embedding models that can be integrated seamlessly with customer AI applications through an API key. In this approach, leading open-source models from Meta or Mistral are hosted in the T Cloud Public, while closed-source models from OpenAI, Google, or Anthropic are provided through third-party platforms. Each customer manages their API keys in a portal, where users are also administered and token usage can be displayed. “This is very convenient for users of the T Cloud Public like ourselves. We can use these services as burst capacity through our own installation.” In other words: Normally, amberSearch serves customers from within its own installation. In response to specific inquiries or high loads, this installation is extended seamlessly through the T Cloud Public – and not only at the level of simple infrastructure resources (IaaS). When can this become necessary?

To understand, remember that amberSearch consists of two components. The original component is the model for searching and rating enterprise information, developed by amber Tech. The second part acts as the user interface: An LLM processes the queries and formulates an answer from the search results.

“The LLM serving service from Deutsche Telekom gives us access to the LLM pool, which is staged directly in the T Cloud Public. When our customers have increased demands for security, they get the corresponding LLM services directly from the T Cloud Public – with which they have already concluded an agreement for commissioned data processing. As a result, even amberSearch has no theoretical way to access the data.” This means amberSearch users can satisfy even the highest requirements for data sovereignty.

Business impact

amberSearch is an example of a perfect interaction between cloud computing and AI. The company is building and developing its AI business model with the LLM serving service based on the T Cloud Public, fully scalable and with adaptive costs. The T Cloud Public also delivers another factor: “The LLM serving service means we can also meet our customers’ demands for high levels of security and sovereignty for their sensitive data.” In addition, amber Tech has the possibility of experimenting with different LLMs, to ensure that their AI services are always of high quality. Last but not least, amberSearch benefits – beyond the cloud and use-based LLMs – from Telekom’s customer and partner network.

Hanebutt Gruppe

Digital Efficiency: Implement smart document search with AI and make knowledge quickly accessible



Reference project:

HANEBUTT

By using AI, we were able to accelerate our processes, serve our customers better, and our employees use amberSearch very often and with pleasure.

Daniel Moreno, Head of IT Infrastructure and Service at Hanebutt Gruppe

Tradition meets AI: Hanebutt revolutionizes document search

The Hanebutt Gruppe is a family-owned roofing company in its fourth generation, headquartered in Neustadt am Rübenberge near Hanover. Founded in 1930, the traditional company has developed into one of the largest craft businesses in Germany—with over 500 employees at numerous locations across the country. The vision “We shape the future of our craft” shapes daily actions and drives continuous transformation.

Despite being rooted in a classic craft industry, Hanebutt repeatedly succeeds in breaking new ground and advancing technologically. This includes the use of artificial intelligence, 3D visualization, digital roof measurement by drone, or safety training with virtual reality glasses. With this spirit of innovation, Hanebutt has evolved from a pure roofing business into a modern provider of comprehensive building solutions—a company that brings tradition and future into harmony.

The reference in detail

Customer pain points

The strong growth of Hanebutt Gruppe led to more and more data silos and scattered information on drives, in M365, tools and systems. Employees find knowledge only with difficulty, which leads to frustration and duplicate work.

How Deutsche Telekom solved it

Hanebutt GmbH relies on amberSearch with Telekom—a German AI solution that searches data silos, respects access rights, and runs on the T Cloud Public. Search and chat facilitate knowledge access.

Business impact

When searching the web, the right question is often crucial—but not everyone formulates precisely. amberSearch balances this out through intelligent algorithms and delivers suitable results even for imprecise queries. Operation is intuitive: via a Google-like search bar.

Growth and system diversity complicate efficient information management

“Due to our growth, acquisitions, and new foundations, we faced the challenge of working with different file structures and software solutions. This made document search significantly harder and cost our employees a lot of time,” reports Julian Kadolph, master roofer and project manager at Hanebutt Gruppe.

As the company grew, so did the amount of data—and thus the complexity of everyday work. Information such as project knowledge or technical standards became increasingly difficult to find, as they were distributed across various platforms: from classic drives to M365 and project management tools to intranet and document management systems. The result was frustration among employees, inefficient processes, and duplicate work due to repeatedly created content. In light of demographic change and the impending departure of experienced knowledge carriers, this situation threatened to worsen.

Find easily instead of searching for a long time: Intelligent search with amberSearch

To counteract this, Hanebutt began searching for a powerful enterprise search solution. Together with Telekom, the IT team evaluated several solutions—and ultimately chose the AI solution from Telekom Techboost Partner for amberSearch.

amberSearch runs on the secure infrastructure of the T Cloud Public and meets all European data protection requirements. The introduction was smooth: within half a day, the solution was ready to use and seamlessly integrated into the existing systems. Since then, employees have been able to quickly and specifically access relevant knowledge—across locations and systems.

When searching the web, the accuracy of the question is often decisive. But not everyone automatically asks the right question to find suitable answers. Thanks to intelligent algorithms, amberSearch manages to interpret even imprecise inquiries purposefully. The AI-based enterprise search and generative AI search from amberSearch offers an intuitive search function similar to Google as well as a ChatGPT-like chat that enables employees to interact directly with existing knowledge.

With AI towards satisfied employees and secure search

In a successful six-month proof of concept, employees were able to thoroughly test amberSearch. The positive feedback was convincing: satisfaction and noticeable increases in efficiency were decisive for the high level of acceptance. The solution is not only powerful but also secure —it takes access rights into account and runs on the protected infrastructure of the T Cloud Public.

“My advice for other companies: Look beyond day-to-day business, actively embrace innovations like artificial intelligence, and just give it a try—it pays off,” says Julian Kadolph, master roofer and project manager at Hanebutt Gruppe.

CUSTOMER PROFILE

Name Hanebutt Gruppe
Founded 1930
Headquarters Neustadt am Rübenberg
Industry Craft – Roofing company

HANEBUTT

Our Partner

amberSearch

AI in hospitals

Smart Health Chat for the German medbo hospital group



Reference project:

medbo®

“T-Systems created an easy way for us to dive into the world of artificial intelligence and guided us through the proof of concept as a trusted expert.”

Veronika Steinkohl, Deputy Director of HR and management spokesperson, medbo

medbo – that’s the name of the medical facilities in Bavaria’s Upper Palatinate district. The company specializes in psychiatry and psychotherapy for adults, children, and adolescents, as well as neurology, neuroradiology, and special competencies in forensic psychiatry. It is organized as a public agency in the form of a municipal company and receives public funding. The healthcare company provides outpatient, inpatient, and daycare treatment in eight locations: Amberg, Cham, Parsberg, Regensburg, Roding, Weiden in der Oberpfalz, Wöllershof, and Wörth a.d. Donau. Its headquarters, including administration, is in Regensburg. medbo cooperates closely with the University of Regensburg in the areas of psychiatry and psychotherapy for adults, children, and adolescents, resulting in the creation of three chairs to closely dovetail research, teaching, and treatment.

Like many other medical companies, medbo has recognized the potential of digital applications to support hospital and hospital-adjacent processes. Its nearly 4,000 employees confidently use digital workflows for their everyday work. medbo also operates the IBP, the largest educational institution in the healthcare sector in eastern Bavaria, as well as the medbo nursing schools, the company’s own vocational schools for nursing and nursing assistance at Regensburg Regional Hospital. Digital learning has long taken root here.

Still, as is the case in other regions, demographic change is a bitter truth in this corner of Bavaria as well, as the hospitals have to cope with increasing numbers of increasingly elderly patients. What’s more, the huge demand for medical, nursing, and therapeutic staff is difficult to meet due to the severe skills shortage. As such, further digitalization and a reduction of staff workload are essential to the healthcare provider’s viability. Artificial intelligence (AI) is one of the tools that medbo is exploring to handle the situation. AI has attracted a lot of attention in recent years, particularly in the medical sector. The potential of digital assistants in preparing for decisions, or as tools that handle administrative tasks like documentation, is readily apparent – with the associated relief for the skilled staffers.

At a glance

- Reduce the workload of hospital staff
- Get started with artificial intelligence and explore its potential
- Search for a fast, cost-effective proof of concept
- Scenario: Internal knowledge management and content creation
- Use of T-Systems’ sovereign generative AI framework for healthcare: Smart Health Chat
- Customer-specific knowledge base enriched through retrieval-augmented generation
- Vector database built and filled with customer’s data and information sources
- Hosted in the T Cloud Public
- Built in just a few days, PoC (proof of concept) over nine weeks
- Highly intuitive user experience and time savings when formulating texts
- Extensive support by T-Systems as an experienced AI partner
- medbo is gathering in-house experience that will serve as a foundation for its future AI strategy
- The T Cloud Public is a sovereign hosting platform that can be used even for highly sensitive data from the hospital and healthcare sectors
- Out-of-the-box AI chatbot that can quickly be adapted to customer needs. Strong customer focus and high level of AI expertise from T-Systems

Healthcare & Life Sciences

The reference in detail

Customer pain points

“We wanted to gain experience with the possibilities and limits of AI first-hand,” says Veronika Steinkohl, the Deputy HR Director and management spokesperson at medbo, about the project’s objectives. To do so, medbo established a PoC (proof of concept) to get started with artificial intelligence. How much relief can the technology actually provide for staff?

medbo wanted to start quickly and with little expense – with an out-of-the-box AI that does not require any training effort and can be implemented and used even without internal AI expertise. One key condition was defined quickly: the PoC was not to use any personal data and would only be used internally.

The team decided to implement a kind of enterprise search/knowledge management feature. To do so, it chose a conversational AI solution to find and summarize information from internal sources – in this case, the Board area’s 5 GB of documents such as press releases, minutes, construction reports, forms, and more in a variety of data formats (pdf, txt, docx, msg, xlsx). medbo found T-Systems to be an excellent partner for getting started with AI.

How Deutsche Telekom solved it

“Smart Health Chat proved to be the perfect solution for medbo’s requirements,” explains Steven Richter, Account Manager at T-Systems. Similar conversational AI solutions are already being used for production in other scenarios, such as for an automotive manufacturer.

The Smart Health Chat is hosted in the T Cloud Public . “Of course, we weren’t able to deploy the existing solutions on a one-to-one basis – automotive information isn’t much help for administrative staff at a hospital group, of course,” says Jan Müller from T-Systems’ Specialist Sales unit with a grin.

Still, this conversational AI solution already has many important features on board: it understands chat-based input and can browse sources, identify relevant knowledge, summarize it, and output it as text. Thomas Rothenbächer, project manager at T-Systems, explains: “We only had to give the bot the right context to ‘understand’ the hospital environment. We designed our sovereign generative IT framework flexibly for cases exactly like this.”

The bot gets access to appropriate data sources through a RAG (retrieval-augmented generation) approach. When the sources are extracted, the data is transformed and stored in a vector database. This database then serves as a continuously updated “context source”, which the bot searches when given the corresponding prompts. Both elements – the AI chatbot itself and the specific vector database – run on a customer-specific tenant on the T Cloud Public . This ensures that the data remains in-house and no one else can access it. The operational chatbot was created in just a few days. The project team then tested the solution over a period of nine weeks.

Business impact

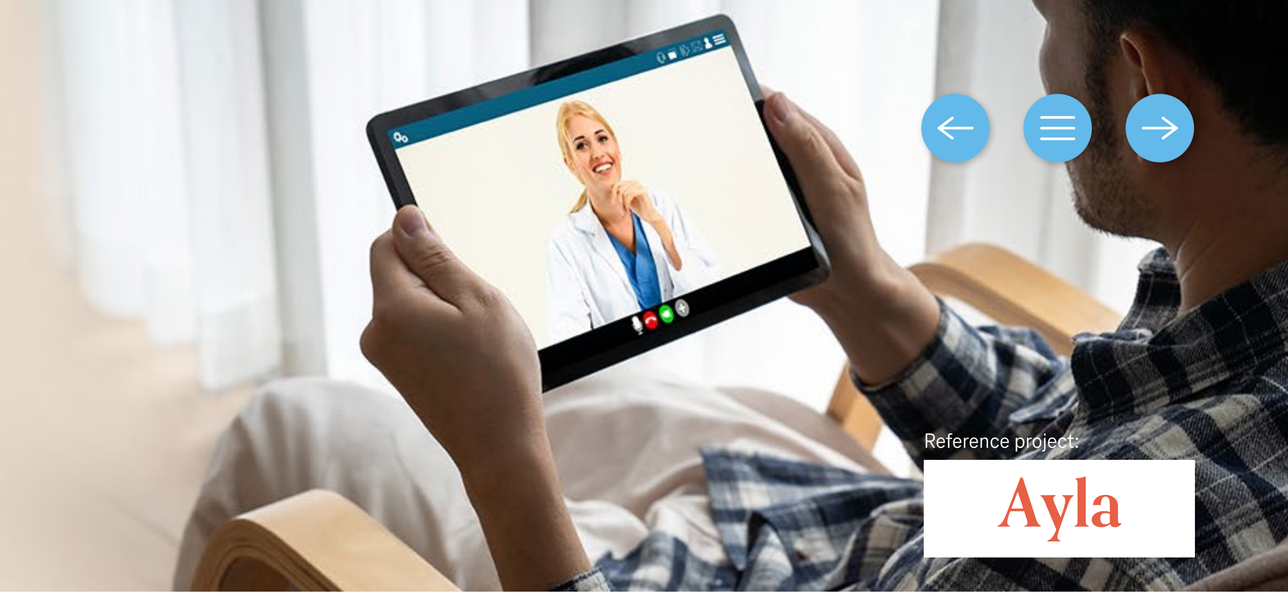
The team members have given high marks to the tool’s features and user interface, as well as to the collaboration with T-Systems, summarizing: “The contact persons had business and technical competencies, and the operation of the software was comprehensible. We were in good hands with T-Systems.” They particularly emphasized the fast availability of the AI service and the time saved when formulating texts. The bot gave administrative staff a first step into the world of AI.

The PoC gave medbo a cost-effective opportunity to gather its first experiences with using AI and set the course for the next steps with this new technology. In addition to internal texts, Smart Health Chat can also search external data sources and add them to its vector database. What’s more, the AI concept also allows for the use of sensitive data: The RAG concept ensures data sovereignty, while the T Cloud Public and its supplementary agreements are compliant with German laws such as §35 SGB (regarding the processing of social data) and §203 StGB (regarding secrecy protection for professional secrecy holders).

In addition, Smart Health Chat also has a variety of additional use cases. Open interfaces enable its use in end-to-end (E2E) automation or integration with omnichannel management platforms.

German cloud for new dementia therapy app

Denmark-based Ayla uses T Cloud Public to enter new markets



Reference project:

Ayla

“T Cloud Public has given us the perfect stepping stone for offering our dementia therapy app in Germany and the UK as well.”

George Webberley, Tech Lead, Ayla

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 Ayla 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 CST-based dementia therapy.

Since the product release at the start of 2023, Ayla 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 Ayla chose the T Cloud Public. In addition, with a growing focus on the UK market, T Cloud Public can provide a framework which will allow the team to scale to the UK and later to the rest of Europe.

The reference in detail

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 T Cloud Public
- 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

Customer pain points

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 Ayla. "We wanted to position ourselves appropriately for the German and European market from the start."

How Deutsche Telekom solved it

To establish a basis for being compliant with regulatory requirements in Germany, the UK and the rest of Europe, Ayla migrated their backend to the T Cloud Public. "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. Ayla'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, Ayla developed CST-Therapist Companion app on T Cloud Public. Since its release the app has been running on the German cloud which forms the basis for customer access to the solution and where it continues to receive updated versions and new features.

Business impact

T Cloud Public enables Ayla to expand into Germany with its offerings and tap into the market potential for dementia. The platform allows Ayla 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.

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

Moodle BW – Move to the cloud

Baden-Württemberg is transforming the Moodle BW learning management system and making it more efficient



“Together with T-Systems, we can ensure a modern and professional operation of Moodle BW and provide our schools with a high-quality offering.” With the “SCHULE@BW” digital education platform, our schools have a modular and high-performance overall offering at their disposal for daily use.”

State Secretary Sandra Boser Member of the State Parliament, Ministry of Education, Youth and Sports, Federal State of Baden-Württemberg

Over 1.5 million school pupils in the 2025/2026 school year underlines Baden-Württemberg’s status as the third-largest federal state in Germany. The state employs over 140,000 teachers at almost 4,500 schools – from elementary schools and high schools to vocational schools.

In 2019, the Federal Government’s first “Digital Pact for Schools” (DigitalPakt Schule) ensured the topic of digitization was added to the agendas of Baden-Württemberg’s schools. At that time, the Ministry of Education, Youth, and Sports began to build SCHULE@ BW – a modular digital education platform for students, teachers, and schools. At an early stage, the federal state decided to integrate two learning management systems for different needs into SCHULE@BW: itslearning and Moodle.

Moodle is a piece of learning management software used around the globe. The adaptable and secure open source software was developed in Australia and enables various forms of in-person and online learning. Over 150,000 registered installations and 500 million users use the learning management system (October 2025). The list of Moodle users is illustrious. It ranges from the College of Policing – the official training institution of the British police – to SOS Children’s Villages and industrial companies such as Mitsubishi Logisnext Europe, the Superdry clothing brand, as well as LALIGA – the Spanish football league. Naturally, educational institutions also use the learning management tool such as the University of Indonesia, where about 60,000 users benefit from Moodle.

The “Moodle BW” learning management system was quickly accepted in Baden-Württemberg. The rapid take up of a digital tool for learning management paid off for Baden-Württemberg: Following the outbreak of the Coronavirus pandemic in 2021, the Ministry of Education and Cultural Affairs had a tool available to compensate for the loss of in-person teaching. With the inclusion of Moodle in the digital education platform, a strategic decision was made to use the application as Software as a Service in the future. T-Systems prevailed in the Europe-wide tender after submitting the best offer.

The reference in detail

At a glance

- Around 620,000 daily users on 1,600 instances
- Numerous plug-ins extend the scope of the standard product and have to be supplied without conflict
- Everyday school life means rapid changes from idle to peak load and requires high overall availability
- The Moodle BW learning management system has been transferred to a central service on T Cloud Public
- Management of the transition phase with additional on-premises resources
- Infrastructure as a Service and automatic scaling enable very short supply times for new schools as well as for additional capacity
- Switch from OpenStack to Kubernetes in the operational phase enables economical operation while also ensuring rapid upscaling if necessary
- Infrastructure operation, application operation, IT service management by T-Systems
- Second and third level support together with the partner “oncampus”
- Following the move to the cloud, users benefit from a stable, modern service

Customer pain points

The Ministry of Education and Cultural Affairs decided to standardize and professionalize the operation of Moodle. The aim of outsourcing to an external partner was to ensure stable operation, even during peak load times and to align Moodle more closely to the standard. Last but not least, the transformation process needed to ensure that Moodle BW was integrated into the “SCHULE@ BW” digital education platform.

In July 2023, T-Systems won the Europe-wide tender for the cloud transformation of the learning management system, infrastructure and application operation, as well as IT service management and second-level support. Since 2025, the Lübeck-based oncampus company has been used as an experienced partner for application management.

How Deutsche Telekom solved it

The aim was to take over operation after a very short lead time and, at the same time, to lay the foundation for a permanently stable, high-performance, and economical operation. A multi-stage approach was therefore chosen.

From the outset, the transformation plan earmarked Kubernetes as the standard container technology as the target solution. With Kubernetes, Moodle BW can be operated irrespective of the platform – even on a scalable cloud. Deutsche Telekom’s leading European sovereign cloud, T Cloud Public (formerly T Cloud Public), was used as the new cloud operating platform. It impressed with its strong data protection concept and the fulfillment of Europe-wide data protection requirements (EU GDPR). Not only that, it also passed various load tests.

To begin with Moodle BW continued to be operated with unchanged code and content on the basis of OpenStack on T Cloud Public. For this purpose, T-Systems provided a cluster of Elastic Cloud Servers for each instance and the number of these servers could be dynamically adjusted to meet the respective load using an autoscaler. In a subsequent migration phase, the local users were assigned to the central Identity and Access Management (IdAM) and migrated together with the content to a new Moodle instance that was set up in a standardized manner for all schools. Since August 2024, the Moodle service, which is integrated into the digital education platform, has been running in regular operation, which also includes IT service management and second-level support.

Furthermore, the software was also prepared for use with containers in the cloud. The application transformation for this step was carried out together with oncampus. Oncampus is responsible for application management, continuous development, and third-level support. The country operates its open source software with maximum sovereignty – and exclusively with German service providers. Upon transition to the cloud, the partners also established agile, cloud-native DevOps mechanisms (Scrum). Innovations to the software are delivered promptly and iteratively in sprints. The Kubernetes-based operation on the Cloud Container Engine, the associated CI/CD pipeline including test automation was set up in just three months between March and June 2025 and put into operation during ongoing operation without any service interruption for the user.

Business impact

With a strong, tested security concept and full service provision from Germany, T-Systems was able to convince the state of Baden-Württemberg and implement a sovereign operation. Together with the ZLS (Zentrum für Lehrerbildung und Schulent-wicklung) [Center for Teacher Training and School Development], the partners showcased the successful project for digital education at Didacta 2025.

With the new cloud and container architecture, Moodle BW is well prepared for further growth and will be able to provide a consistently high-quality user experience for millions of students and teachers in the future. Thanks to the cloud, the country also benefits from a use-based pricing model and discounts for tiers.

Chamber of Industry and Commerce for Munich and Upper Bavaria

Secure cloud for the Chamber of Industry and Commerce



Reference project:

IHK

There are 79 Chambers of Industry and Commerce in Germany, nine of them in Bavaria. They are responsible for the self-administration of the regional economy, and offer entrepreneurs information about training, business start-ups, and legal issues. They also represent the interests of their members to politicians. By the end of 2022, most of the services are supposed to be accessible via the Internet. This is because, as public corporations, the chambers of industry and commerce are subject to the Online Access Act (OZG). This calls for the digitalization of public administration services in order to facilitate access for citizens, replace paper-based processes, and reduce the workload for offices and authorities. This is one of the reasons why the Chamber of Industry and Commerce for Munich and Upper Bavaria has been relying on the public cloud since 2020. The Munich chamber uses the cloud infrastructure to expand its portfolio for its customers.

At a glance

- **Task:** The Chamber of Industry and Commerce for Munich and Upper Bavaria was looking for a cloud provider that met the strict requirements of a public corporation with regard to data protection and IT security. And at the same time could offer all the desired modern technologies.
- **Solution:** The Chamber of Industry and Commerce has been using IaaS and PaaS resources from the T Cloud Public since 2020. Among other things, the offer stood out due to its security and open-source solutions as well as the commitment to professional secrecy for employees who provide support for the Chamber of Industry and Commerce.
- **Result:** The Chamber of Industry and Commerce gets more security from the public cloud than would be economically feasible in its own data center. A high degree of automation accelerates IT processes. Open-source technology ensures vendor independence for the association. The Chamber of Industry and Commerce can meet all Online Access Act (OZG) requirements on time.

The reference in detail

The Chamber of Industry and Commerce for Munich and Upper Bavaria

The Chamber of Industry and Commerce for Munich and Upper Bavaria is the largest such chamber in Germany. It represents the interests of around 410,000 companies in its chamber district. As a public corporation, it is subject to specific rights and obligations. And it carries out public sector statutory tasks on behalf of the state – for example in vocational training. In recent years, the Chamber of Industry and Commerce has also been responsible for the applications, processing, and payment of coronavirus financial aid for its member companies. Membership of the regional Chamber of Industry and Commerce is mandatory for a large proportion of German companies. Freelancers, handicraft businesses, and farms are exempt.

Customer pain points

Digitalize, automate, modernize – Roberto Schumann, Head of IT Services at the Chamber of Commerce and Industry for Munich and Upper Bavaria, was pursuing clear goals for the IT infrastructure in 2019: “In doing so, we were faced with the question of whether to invest extensively in new hardware for future requirements or to rely on a cloud solution.” The decision was made in favor of the cloud. However, one thing had to be taken into account: As a public corporation, the Chamber of Industry and Commerce has to meet particularly strict requirements with regard to data protection and IT security. Due to its public sector statutory tasks, it is obliged to provide special protection for the data of companies and trainees, for example. Accordingly, a provider had to be able to offer GDPR-compliant resources from German data centers. In addition, the Chamber of Industry and Commerce also required a commitment to professional secrecy for employees in cloud support. Equally important: “Diverse state-of-the-art technologies that we wanted to use,” says Schumann.

How Deutsche Telekom solved it

After a tender process and a successful proof of concept, the Munich chamber chose the T Cloud Public. The Chamber of Industry and Commerce uses both Infrastructure and Platform as a Service from the data centers in Biere and Magdeburg – including, for example, backup and storage services. Among other things, it operates database and container systems in the cloud.

Standard scripting tools such as Ansible and Terraform ensure the rapid distribution of new software. With the help of a blockchain-based solution in the cloud, users can now even check the authenticity of sensitive documents, such as training certificates.

Business impact

From Anti-DDoS to fail-safety across multiple availability zones, the T Cloud Public offers the Chamber of Industry and Commerce for Munich and Upper Bavaria all the measures it requires for protecting data and applications. “We could not cost-effectively operate such comprehensive protection in our own data center,” says IT expert Schumann. For handling sensitive information, the Chamber of Industry and Commerce also benefits from the commitment to professional secrecy among employees of the T Cloud Public. A high degree of automation and open-source technologies accelerate development and provisioning processes and also ensure provider independence for the customer. Demand-based billing makes the use of cloud resources significantly more cost-efficient than procuring and operating in-house hardware.

ROLAND Rechtsschutz-Versicherungs-AG

Flexible into the future



Reference project:

ROLAND RECHTSSCHUTZ

Cloud computing, the use of AI, and increasing automation: Digitalization is also transforming the insurance industry. What numerous studies and industry surveys predict as the trends of the future are already being implemented by ROLAND Rechtsschutz-Versicherungs-AG.

The insurer, which is based in Cologne and has around 1,200 employees, has had virtual servers in the T Cloud Public since 2019. The insurer had previously operated its own data center for many years. The switch from the on-premises structure to cloud servers was intended to not only increase the security of the infrastructure, but also to save costs and reduce the burden on its staff. Today, ROLAND benefits from a secure and modern infrastructure that can be flexibly expanded, enables AI applications, and, thanks to the high security standards, already meets a large part of the compliance requirements of the German Federal Financial Supervisory Authority (BaFin).

Deutsche Telekom and ROLAND Rechtsschutz-Versicherungs-AG

At a glance

- **Task:** In the past, the insurance company ROLAND had relied on an on-premises data center. However, its operation led to rising costs and high expenditure on personnel. Together with its digitalization partner Telekom, ROLAND, therefore, switched to the cloud.
- **Solution:** Since 2019, ROLAND has been using the T Cloud Public instead of its own servers. Thanks to the OpenStack-based infrastructure service, the insurer benefits from a scalable platform that runs its core applications, among other things. The Oracle databases, which are important for operations, could also be licensed for the cloud.
- **Result:** The T Cloud Public enables both the employees and the IT to work more effectively and better contribute to value creation. ROLAND can adapt the scope of the solutions at any time at short notice. And, thus, significantly reduce its costs.

The reference in detail

Customer pain points

When a car breaks down, the stress levels soar. And the vehicle owner wants to be able to reach someone at their car insurance company quickly. For the insurance company ROLAND, which in addition to legal protection insurance also specializes in motor insurance and assistance services, efficient processes and fast customer service are, therefore, a top priority. The insurer laid the foundation for its services in 2019 with the T Cloud Public. The company relies on efficient digital structures and is thus one of the digital pioneers within the industry. According to a recent PwC study, 61 percent of decisionmakers in the insurance industry in Germany expect digitalization to boost growth. But many insurance companies still have reservations about the cloud. The biggest reservation? Putting their own data in the hands of others. ROLAND had also relied on an on-premises data center for a long time. However, the company's own infrastructure resulted in high costs and expenditure on personnel. The company, therefore, decided to switch to the cloud. However, it faced some challenges. The company is subject to the regulations of the German Federal Financial Supervisory Authority (BaFin), so a cloud solution had to meet the compliance guidelines of the supervisory authority. In addition, ROLAND uses Oracle databases that were previously only licensed for strictly-defined core computers. In order to be able to use the important databases in the cloud, a special solution had to be developed with the manufacturer.

How Deutsche Telekom solved it

ROLAND tackled the challenges together with Telekom and ventured into the T Cloud Public in 2019. The solution from the twin-core data center in Magdeburg/Biere offers ROLAND a modern infrastructure with flexible capacities and high security standards. In addition, the cloud's OpenStack basis provided a convincingly reliable and scalable software. Instead of a single on-premises data center, ROLAND now uses secured twin-core servers: The insurer's data and applications are located both on Telekom's active server and mirrored on a physically remote, passive server. This means that the data is stored in a geo- redundant and fail-safe manner.

The highly-certified T Cloud Public also met the most important BaFin requirements. With only a little effort, ROLAND also met the additional outstanding requirements. Telekom also found a solution for the cloud licensing of the Oracle databases. The insurer stores the databases on individual bare metal servers.

Business impact

For Oliver Schaber, Head of IT at ROLAND AG, the migration was the right decision: "By moving to the cloud, we have taken a pioneering step that we can only recommend to other companies in our industry. Thanks to the trustworthy cooperation with Telekom, we have not only significantly increased the security of our services, but also considerably reduced our costs." The company also benefits today from a flexible infrastructure. Thanks to the server outsourcing, IT employees can once again concentrate more closely on the company's actual value creation. And thanks to the better performance of the programs, employees can also work more effectively and concentrate fully on advising customers. In addition, the cloud opens up new possibilities. For example, ROLAND is examining the future use of AI models and big data analyses of process data.

Cloud use for social security data at health insurance companies

Handling sensitive health data in T Cloud Public reduces resolution time from days to hours for AOK Niedersachsen



Reference project:

AOK Die Gesundheitskasse. AOK Niedersachsen

Binect Geschäftspost.Einfach.Digital.

“The solution times have been reduced from days to hours. The user experience has improved significantly. Overall, service availability, performance, and flexibility during peak loads have improved significantly.”

Sebastian Angerstein, Head of IT Project and Solution Management, AOK Niedersachsen

“Social data in the cloud – that’s impossible.” AOK Niedersachsen proves otherwise. Together with its IT service provider Binect, the health insurer successfully deployed its output management solution on T Cloud Public.

AOK Niedersachsen is one of the major health insurance providers in Germany. More than three million insured individuals, 195,000 corporate customers, and over 30,000 contractual partners rely on AOK Niedersachsen (AOKN). This makes it the seventh-largest statutory health insurance provider in Germany. The scale of the organization is also reflected in its key financial figures: in 2025, AOK Niedersachsen managed a budget of more than €17.3 billion for health and long-term care insurance.

Customer service and regular contact are high priorities for AOKN. The organization continues to emphasize a strong local presence, with 7,200 employees supporting customers in person at more than 100 locations. At the same time, non-personal channels such as email and printed communications remain important. Many of the documents sent by the health insurance provider contain personal, health, or social data—for example, benefit notices, service statements, or even the issuance of new health insurance cards. For its output management, AOK Niedersachsen relies on Binect GmbH, one of Germany’s leading business process outsourcing providers. Binect supports more than 20,000 users and processes over 100 billion mailings annually.

At a glance

- AOK Niedersachsen manages 3M insured, 195K corporate, 30K partners
- Customer service delivered by 7,200 staff in 100+ offices
- Document handling processes 20M+ sensitive records annually
- Binect partnership established for output management over 10 years
- Binect evolution shifted from ISV to SaaS provider
- On-premises model caused bottlenecks and limited scalability
- Hardware lifecycle triggered reassessment of IT strategy
- German cloud focus chosen for strict compliance needs
- T Cloud Public selected as sovereign, GDPR-compliant platform
- Certifications include ISO 27001, 27017, 27018, and BSI C5
- Cloud deployment approved and live for 3+ years
- Performance gains cut resolution times from days to hours
- Cost transparency achieved via pay-as-you-use dashboard

The reference in detail

Customer pain points

AOK Niedersachsen faced mounting challenges in securely managing over 20 million sensitive health and social data documents annually. Traditional on-premises infrastructure often led to bottlenecks and limited scalability, especially during peak loads. As Sebastian Angerstein and Christoph Meyer explained, “Due to the high level of protection of the data, there is also a special focus on the security standards of the solution. Above all, it must also pay off from a business point of view.” The perception that “Social data in the cloud – that’s impossible” underscored the compliance risks of US hyperscalers, where unresolved legal frameworks threatened data sovereignty. With hardware reaching end-of-support and rising demand for faster resolution times, Binect required a sovereign, GDPR-compliant cloud platform to operate its output management solution for AOK Niedersachsen. This led to the adoption of T Cloud Public, ensuring legally compliant operations, high availability, and secure handling of sensitive social data.

How Deutsche Telekom solved it

AOK Niedersachsen faced the daunting challenge of securely managing more than 20 million sensitive health and social data documents each year. Traditional on-premises infrastructure created bottlenecks and limited scalability, especially during peak loads. The organization needed a sovereign, legally compliant cloud solution that could guarantee availability, performance, and trust.

With the support of Deutsche Telekom, Binect successfully implemented its cloud-based output management solution for AOK Niedersachsen on T Cloud Public. This sovereign platform was chosen specifically to meet Germany’s strict legal and compliance requirements for handling social and health data. As Oliver Kohl from Binect explained, “In our search for the right cloud for our cloud journey as an ISV, we came across the T Cloud Public. It is a German product and already had a high degree of maturity at that time with an extensive service portfolio.”

The solution leveraged multiple services, including the Storage Disaster Recovery Service (SDRS), ensuring high availability and resilience. With certifications such as ISO 27001, ISO 27017, ISO 27018, and BSI C5, T Cloud Public provided GDPR-compliant hosting in German data centers, fulfilling obligations under the German Social Security Code and Criminal Code. This gave AOK Niedersachsen confidence that sensitive data would remain secure and sovereign.

The deployment was approved by security and data protection officers, and the system has been in productive use for more than three years. Christoph Meyer, Head of Product and Solution Management at AOK Niedersachsen, emphasized, “The Binect solution running on the T Cloud Public operates reliably and delivers consistently high availability.”

The impact was immediate: resolution times dropped from days to hours, service availability improved, and user experience was significantly enhanced. As Sebastian Angerstein noted, “Overall, service availability, performance, and flexibility during peak loads have improved significantly.” With pay-as-you-use cost models and transparent dashboards, AOK Niedersachsen also achieved financial efficiency.

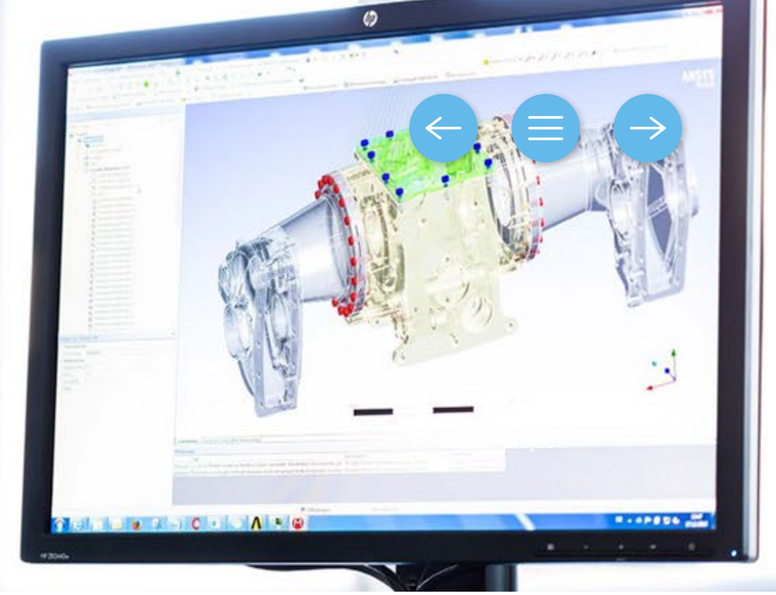
Through T Cloud Public, T-Systems delivered a sovereign, secure, and scalable solution to transform healthcare output management and prove that “social data in the cloud” is not only possible but highly effective.

Business impact

By running Binect’s output management solution on T Cloud Public, AOK Niedersachsen achieved a scalable and future-ready operating model. Serving more than 3 million insured individuals, 195,000 corporate customers, and 30,000 partners, the health insurer processes over 20 million documents annually across 16 million shipments. The sovereign, GDPR-compliant cloud reduced resolution times from days to hours, ensuring faster delivery of benefit notices and health cards. With 7,200 employees across 100+ offices, improved system stability directly enhanced customer service. High availability and scalability allowed seamless handling of peak loads, while the pay-as-you-use model and Enterprise Dashboard provided cost transparency. Today, Binect operates services for 40+ customers on T Cloud Public, positioning AOK Niedersachsen for secure, compliant growth.

CADFEM GmbH

Top simulation thanks to the cloud



When engineers want to know during the development phase how their products will perform in practice, they turn to CADFEM GmbH. The company, headquartered in Grafing near Munich, is part of the CADFEM Group, which in turn not only distributes Ansys' leading simulation software in more than 35 locations around the world, nine of which are in Germany, Austria, and Switzerland, but also calculates complex models and predictions for many customers.

On the basis of these findings, companies improve their production processes, optimize components, and detect possible malfunctions at an early stage. In order to more flexibly map the fluctuating need for computing power for the demanding simulation processes, CADFEM uses the T Cloud Public in Germany, Austria, and Switzerland. With this solution, the simulation experts are always in a position to quickly and easily deploy additional IT resources to meet high demands and to scale almost without limits. In this way, the company avoids the costly purchase of its own hardware and always has an overview of all the expenses thanks to the T Cloud Public's usage-based billing model.

Deutsche Telekom and CADFEM

At a glance

- **Task:** CADFEM was looking for flexible and cost-effective IT resources to run simulations. Due to the varying performance requirements for the computing processes, the company needed a scalable and demand-oriented IaaS offering. The company wanted the data to be processed exclusively in Germany.
- **Solution:** Due to its usage-oriented billing model and versatile configuration options, the company opted for the T Cloud Public. CADFEM now obtains the necessary computing power flexibly via Elastic Cloud Server and simply books additional capacity during peak loads.
- **Result:** The company is no longer reliant on costly hardware leasing and server housing, but instead obtains its resources flexibly from the cloud. In this way, CADFEM guarantees its employees scalable computing power and benefits from a cost-effective mix of fixed basic usage and additional demand-based services.

The reference in detail

CADFEM

CADFEM has been supporting companies from many different industries with simulation and calculations in research and product development for more than 35 years. In addition to the nine locations with a total of 250 employees in Germany, Austria, and Switzerland, the CADFEM Group is present in many other international locations, so that the company's expertise is applied all over the world. In its core business, as an Ansys Elite Channel Partner, CADFEM also offers the licenses of the US market leader for simulation software.

Customer pain points

In the past, in order to perform its computational services and simulation tasks at the required speed, CADFEM rented data center space and built its own system there using leased blade servers.

Employees accessed their assigned resources with their laptops and performed their calculations that way. The problem was that only a limited performance quota was available to the individual employees. If an expert needed more capacity for a particularly demanding computing operation, this was only possible with a certain amount of preparation. The rigid allocation of servers also increased the organizational effort in the event of personnel changes. The company was, therefore, looking for a secure and data-protection-compliant alternative to operating the hardware itself.

How Deutsche Telekom solved it

With the T Cloud Public, CADFEM can now use highly-scalable and data-protection-compliant computing capacities for its simulations without having to carry out complex configurations on its own hardware. The solution uses Elastic Cloud Server to provide virtual machines for a wide range of requirement scenarios, thus enabling the precise deployment of resources.

CADFEM uses a fixed, high-performance graphical flavor from the T Cloud Public as standard, i.e., a basic configuration of resources that are used for the virtual machines. If a simulation requires additional computing power, employees can flexibly select hardware with the appropriate resources from the cloud.

Business impact

Thanks to the new solution, CADFEM benefits twice over: The effort of constantly adapting its own systems to new requirements is eliminated, as is the time-consuming and labor-intensive maintenance of the servers. Instead of being tied to a fixed hardware contingent for several years with leasing contracts, employees now benefit continuously from the latest technological developments. The T Cloud Public has also helped to harmonize the company's IT landscape across its locations.

As their data is processed exclusively in secure, highly-available, and certified data centers within Germany, customers also benefit from the new CADFEM solution. Particularly important for the company: The TISAX certification, which enables CADFEM to continue to work closely with partners from the automotive industry.

Another plus point for users and customers: Since the T Cloud Public offers a usage-based billing model, CADFEM now only has to pay for the capacity that it uses. This allows CADFEM to allocate the costs for the IT infrastructure precisely to the respective projects and pass them on transparently to the customers.

Private cloud solution for Swiss Federal Railways (SBB)



Reference project:

“Thanks to the close collaboration, we were able to improve our internal service level, making for much more satisfied users.”

Igor Masen, Lead Architect at SBB

Swiss Federal Railways (Schweizerische Bundesbahnen, SBB) is a joint-stock company under special legislation with its headquarters in Berne. Its public services include passenger transport and the railroad infrastructure. It gets more than 880 thousand people and 185,000 tons of freight to their destination every day. 33,500 employees are passionately committed to ensuring that their customers arrive safely, on time, and climate-friendly.

Getting travelers from A to B and ensuring that freight cars reach their correct destination is the business mission of Swiss Federal Railways. Above and beyond this, the company continually strives to increase its own efficiency and effectiveness. Developing the “mobility of the future” requires dynamic, cloud-native infrastructures that can react quickly to the volatile demands of the customer environment. In turn, this requires a flexible ecosystem, based on digital IT, that makes it possible to add more trains to the schedule as needed in addition to the established interval timetable. The keys to this are continuous integration and continuous deployment (CI/CD) for the digitalization of all customer needs. They make it possible to capture optimization potential – for instance, to improve employee safety or increase the company’s own network capacity.

At a glance

- **Task:** To expand to a hybrid cloud infrastructure, Swiss Federal Railways needed dedicated resources from the private cloud that were secure, flexibly scalable, and seamlessly compatible with other cloud resources. Other requirements included hosting on Swiss soil and low latency.
- **Solution:** T-Systems provides private cloud resources to SBB as managed services. These cloud instances are hosted and managed by digitalization specialists in the Swiss data centers.
- **Result:** SBB benefits from secure cloud instances provided specifically for SBB, with high flexibility and high availability. T-Systems ensures the smooth operation and continuous further development of the service portfolio within the cloud-native platform. The underlying cloud technology standard “OpenStack” forms the foundation for sovereignty, while API-driven guarantees seamless compatibility with standard public cloud instances.

The reference in detail

Customer pain points

Real-time services for travelers, efficient resource management, smart mobility services – to meet new demands and develop new applications, SBB requires increasingly extensive IT resources that can be provided as flexibly and scalably as possible. The company's public cloud strategy has already involved a number of different hyperscalers. In addition, SBB also relies on the community cloud from T-Systems, which makes it possible to use established public cloud processes in a similar manner and present the provided service in a more protected context.

The Swiss T Cloud Public is hosted in Switzerland. Low latency times to SBB's existing classic stack and intercommunication with the public stack are guaranteed. The customer's demands for data protection and data conformity are also met.

How Deutsche Telekom solved it

Cloud-native operation with hyperscaler integration as the operating model for digitalization at SBB: With the Swiss T Cloud Public, T-Systems provides SBB with the requested on-premise infrastructure. T-Systems also provides managed services for the operation and further development of the underlying technology platform. In the intensive dialog, the partners are developing features like vulnerability management and a zero-trust concept, including credential management, and establishing extensive enterprise service agreements. "Thanks to the close collaboration, we were able to improve our internal service level, making for much more satisfied users," says Igor Masen, the Lead Architect at SBB.

Business impact

Secure, flexible, and seamlessly compatible: "With the Swiss T Cloud Public, our employees have the readily scalable computing and storage services that they know from the public cloud available as services in the community cloud," says Igor Masen. What's more, thanks to the OpenStack cloud standard, community cloud resources can easily be combined with instances from the public cloud on demand. SBB has already migrated around 800 development and production systems to the Swiss T Cloud Public and is working on replacing its classic stack. The railroad operator already uses open-source technology for new applications, built on the infrastructure best suited to their intended use. "In the Swiss T Cloud Public, SBB now has additional cloud technology to provide solutions to the company," says Steven Henzen, Tribe Lead Lean Product House & CTO at T-Systems Switzerland.

Intelligent automation for energy suppliers

rku.it procures UiPath as a managed service from the T Cloud Public



Reference project:

rku IT

“UiPath from the sovereign T Cloud Public – the perfect package for us to get our intelligent automation solutions off to a flying start: the Energy Automation Sphere gains a solid foundation.”

Christian Kenter, Service Owner for Automation and Data-Based Services at rku.it

rku.it GmbH, based in Herne, is the leading solution provider and operator for medium-sized and large utility companies in Germany, Austria and Switzerland. Its customer base comprises more than 130 companies from the energy industry, public transportation companies and local governments. rku stands for “Rechenzentrum kommunaler Unternehmen” (data center for municipal enterprises). The company has had this name since 1970, when it was renamed from “Lochkartengemeinschaft kommunaler Unternehmen GmbH” (LKU) [punch card association of municipal enterprises], a name that goes back to 1961. Although punch cards are now just an anecdote in technological history, back then, they were high tech. Looking back highlights what is still important for rku.it today – its commitment to leveraging technological innovations in close collaboration with its customers. The company has now grown from its seven employees in 1961 to a current team of over 470 employees.

It supports over 6,500 users. The energy suppliers in its customer base bill more than 4.8 million meter points across around 80 productive systems using ERP application software in the rku.it data centers. Alongside software from SAP SE and Schleupen AG, the IT service provider offers its customers additional software solutions. Core components include applications for billing energy sales, energy data management, data exchange processes, portal solutions, document management, and business Intelligence applications for corporate management. rku.it’s portfolio also includes the Smart Meter Gateway Administration and Business Process Outsourcing products in the areas of EEG (German Renewable Energy Sources Act) and KWK-G (Combined Heat and Power Act) billing, consumption billing, energy data management and billing for charges.

With the “Energy Automation Sphere”, rku.it is addressing the growing challenges faced by energy utilities as a result of evolving business areas and increasing regulation. At the same time, it is becoming more and more difficult to find employees. “The Energy Automation Sphere’s partially and fully automated solutions make life noticeably easier for employees in day-to-day business operations”, said Christian Kenter, Service Owner for Automation and Data-Based Services at rku.it. The suite comprises over 400 robotic solutions that include calculating new rates, identifying meter reading errors, producing bills and managing customer data.

Since 2018, rku.it has been deploying one of the market leaders to provide automation solutions: UiPath. At e-World 2025 and 2026, rku.it is presenting the Energy Automation Sphere with its new opportunities for intelligent automation and hyperautomation to a wide audience.

At a glance

- rku.it: Leveraging business potential with intelligent automation
- Access to new UiPath modules necessary
- Higher license costs
- Suitable infrastructure resources required (e.g., GPUs)
- Meeting regulatory requirements
- Migration to the T Cloud Public
- Provision of the current UiPath version including tools for intelligent automation
- End-to-end package: use as a managed service from T-Systems
- Best technology, best price
- Full data sovereignty
- BSI C5 certification
- Scalability for new business: stepping stone for growth

How Deutsche Telekom solved it

T-Systems gives rku.it access to UiPath's current version (V 24.0) – as a managed service from the T Cloud Public. "We convinced the customer by having the best technical rating and the most attractive price in the tender process," said Simon Spenler from T-Systems. The reason for this: the unique combination of a sovereign German cloud, which has already been on the market since 2016, and the UiPath expertise that T-Systems contributes as a UiPath platinum partner.

Within a matter of weeks, T-Systems provided the new UiPath installation for rku.it, following which rku.it migrated its services to the new platform. Since then, the platform has been operated by T-Systems in a highly secure data center in Germany. T-Systems also provides rku.it with first-level support for UiPath. The BSI-C5-certified T Cloud Public meets all sovereignty demands made by rku.it and its customers.

Why Deutsche Telekom

T-Systems, UiPath's platinum partner, provides rku.it with UiPath as a managed service from a sovereign, high-performance German cloud

The reference in detail

Customer pain points

"Our automation solutions have been very well received by our customers," explained Mr. Kenter, "but we want to go beyond simple automation. We can see potential among our customers for intelligent automation and hyperautomation." The RPA (Robotic Process Automation) software robots are connected using artificial intelligence to enable this. This also enables process and task mining and document recognition.

Implementing new intelligent offerings for its customers also meant rku.it needed to realign its commitment with UiPath. These new solutions will only be possible with further modules from UiPath, which come with additional license costs. At the same time, artificial intelligence also needs GPU resources for training and operation – another necessary investment in addition to the new UiPath licenses. rku.it wanted to minimize investment risks while, at the same time, creating a high-powered sovereign platform that meets all regulatory requirements. This is where T-Systems came in.

Business impact

"We are delighted to be able to offer the Energy Automation Sphere in collaboration with UiPath and T-Systems. At rku.it, we rely on strong partnerships and know that major projects like this can only be executed by working together and pooling our expertise. I'm convinced that we can create added value for our customers at exactly the right moment with this product," said Matthias Junker, Director of Operations and Member of the Management Board at rku.it.

rku.it creates the basis for business innovation – without having to invest in infrastructure and software first. rku.it can use the cutting-edge opportunities provided by UiPath as a managed service from the T Cloud Public at any time while costs remain stable. Data remains in Germany and the cloud automatically provides the infrastructure resources required as and when necessary – the perfect package to enable growth with intelligent automation in regulated markets.

envelio GmbH

Intelligent software for power grids



Reference project:

envelio

The processes of distribution network operators in the energy sector are not set up for the integration of hundreds of thousands of new installations such as charging stations and wind energy parks. They have to laboriously and time-consumingly pull the necessary data for new connections from different systems. This is where the Intelligent Grid Platform (IGP) from the Cologne-based startup envelio comes in: The software platform digitally maps power grids, analyzes grid data, and performs simulations within minutes, and then derives recommendations for action. In this way, grid planning and operation can be simplified and automated.

envelio offers the IGP in two variants: as an on-premise solution and as software as a service (SaaS) from the T Cloud Public. For security, performance, and cost reasons, the fastgrowing startup recommends the SaaS solution. For each SaaS customer, envelio sets up an IGP cluster in the T Cloud Public and provides appropriate and automatically scalable computing power. Currently, envelio uses Elastic Cloud Server (ECS) and load balancers for the IGP. In addition, the startup also outsources its own IT services to the T Cloud Public as much as possible and uses it as a backup.

Deutsche Telekom and envelio GmbH

At a glance

- **Task:** Since its previous hosting providers did not allow flexible combinations of infrastructure resources, the startup envelio needed a secure and highly-scalable infrastructure solution to offer its Intelligent Grid Platform (IGP) for the electricity industry as a SaaS solution.
- **Solution:** envelio uses Elastic Cloud Server (ECS) and load balancing from the T Cloud Public. For each SaaS customer, an IGP cluster is set up in the T Cloud Public, and computing power is made available via the Internet according to size.
- **Result:** envelio can offer its customers SaaS use that is both flexible and secure at the important data location of Germany – and uses the T Cloud Public itself as a backup, and to out-source the IT services used in its own company as far as possible.

The reference in detail

envelio

Digital electricity grids for the energy transition: This is the motto of the startup envelio. The company was founded in April 2017, as a spinoff of RWTH Aachen University. The founding team, which included Dr. Philipp Erlinghagen, Vice President Product, had already worked together for several years to develop software and algorithms for the planning and operational management of energy grids. Today, envelio has a team of around 70 employees who are together driving forward the Intelligent Grid Platform (IGP) as an innovative digitalization platform for energy grids.

The modular assistance system IGP digitally maps power grids so that grid planning and operation can be simplified and automated The IGP provides a quick analysis of grid data and then derives recommendations for action. Distribution network operators can check directly whether their network still has capacity for new installations such as solar plants or wind farms. One in seven of the approximately 150 largest regional distribution network operators in Germany already uses the IGP software. envelio's international customers include Portuguese company EDP, one of Europe's largest energy suppliers.

Customer pain points

envelio offers the IGP as both an on-premise installation and a cloud service. But the vendor hosting solutions that the startup had previously used did not offer any scaling capability to assemble dedicated infrastructures with more CPU cores or more RAM. Since network security features were also missing, envelio was looking for an infrastructure solution that was as flexibly scalable as it was secure – not least because envelio's German customers are required by law to manage their data in Germany.

How Deutsche Telekom solved it

Since 2018 envelio has been using the T Cloud Public to provide its customers with the IGP as software as a service (SaaS). The startup had become aware of the infrastructure solutions of the T Cloud Public through Telekom's TechBoost startup program. Through TechBoost, more than 500 young companies are already benefiting from credits for cloud resources, marketing and sales support, as well as customer contacts.

Telekom's cloud solution also offered advantages such as high scalability, a secure location, and network security features. For each SaaS customer, envelio sets up an IGP cluster in the T Cloud Public and provides scalable computing power according to its size. Currently, envelio uses Elastic Cloud Server (ECS) and load balancers for the IGP; disaster recovery will be added in the future.

Business impact

One of the main advantages of the T Cloud Public for envelio is that it is operated in Germany and provided by Telekom. Hosting in the T Cloud Public is the safest, fastest, and most cost-effective way to operate the IGP – and therefore a clear selling point for envelio's German customers. envelio also outsources its own IT systems and services to the T Cloud Public as far as possible and uses this as a backup as well as for failover scenarios, with a corresponding redundancy strategy. Since there is no lock-in mechanism and the highly scalable T Cloud Public has an open cloud architecture, it offers the best conditions for envelio to develop further systems and customer applications. Last but not least, Telekom's technical support is a major plus point, as even a comparatively small startup like envelio receives comprehensive support and assistance.

Randstad Deutschland GmbH & Co. KG

Full data protection in the cloud



Randstad Germany has been helping companies in this country fill vacancies since 1968. As well as applicants who are looking for a suitable job. The HR service provider is part of Randstad N.V., which was founded in Amsterdam in 1960. Its service portfolio ranges from traditional temporary employment and direct personnel placement to specialized staffing solutions such as inhouse services.

In order to keep up with the times in the fast-moving HR services industry, Randstad has been driving digital transformation for many years. In the process, the service provider is digitalizing a growing number of processes; particularly at the interface between Randstad consultants, clients, and candidates, i.e., successfully placed applicants.

The “MeinRandstad Portal” plays an important role here. Candidates use it for digital time recording and customers use it to check invoices. It is linked to apps that candidates can use to view their shift schedules, chat, or submit vacation requests. Most of the information is personal data, which Randstad must ensure it protects in light of the General Data Protection Regulation (GDPR).

Deutsche Telekom and Randstad

At a glance

- **Task:** In accordance with the GDPR, Randstad must ensure data protection for all personal information in the MeinRandstad Portal and the associated apps. Since customers and candidates need to be able to access it at any time, performance and security are required around the clock – and powerful cloud resources are needed for this.
- **Solution:** With the T Cloud Public, Kretschmer + Partner, Randstad’s IT service provider, uses a data privacy-compliant public cloud to operate the portal and apps. The software runs fail-safe in two high-availability zones in Telekom’s data center.
- **Result:** As a European hyperscaler, the T Cloud Public offers flexible and highly-scalable cloud services. Since all personal data remains in Germany and the cloud provider is subject to German law, Randstad can comply 100 percent with the requirements of the GDPR.

The reference in detail

Randstad Deutschland GmbH & Co. KG

Customer pain points

Initially, Kretschmer + Partner, Randstad's IT service provider, operated both the MeinRandstad Portal and the apps in its own data center. For more than 15 years, the two companies have worked together in a spirit of trust to successfully shape Randstad's digital ecosystem.

To benefit from the powerful, scalable resources of a public cloud, Kretschmer + Partner migrated the portal to a US hyperscaler in 2016. At the time, the "Privacy Shield" data protection agreement still regulated data processing between the EU and the US. However, in the summer of 2020, the European Court of Justice concluded that the agreement did not provide adequate protection and overturned the Privacy Shield. Since then, there has been no official policy for processing personal data in the US. As a result, since US hyperscalers are subject to US legislation and thus to the Patriot Act, US authorities could, for example, access personal data without a court order.

"At this point, at the latest, it was clear that we had to make improvements in terms of data protection," says Rosa Rodriguez Fernandez, Manager e.solutions at Randstad Germany, therefore, actively sought a GDPR-compliant public cloud for Randstad.

The requirements? It should offer the same performance and functionality as a US hyperscaler. However, the cloud should come from a German provider that could guarantee that all sensitive and personal data would be stored and processed within Germany.

How Deutsche Telekom solved it

The decision was made in favor of the T Cloud Public. It impressed the company management both in terms of data protection and hyperscaling. The portal and apps have been running productively on the T Cloud Public since October 2021. To ensure that all data is redundant, Randstad uses two high-availability zones in Telekom's high-performance data centers in Biere and Magdeburg. The Object Storage Service, which is compatible with the S3 object storage service from AWS, is used for the back-up. The required cloud resources can be optimally controlled with Auto Scaling and the Elastic Load Balancer.

One special feature: For licensing reasons, the Microsoft SQL Server database servers must run on dedicated hardware, which can be easily implemented with the T Cloud Public's bare metal server.

Business impact

Companies violating the GDPR face fines of up to 20 million euros or 4 percent of the company's turnover. In addition, there is a loss of image and trust on the part of customers and employees. Randstad no longer has to worry about these issues. Another advantage: Thanks to the T Cloud Public, the HR service provider meets the needs of its customers, for whom data protection and data security play an important role. It is now standard in tenders for them to ask where, by whom, and with which IT systems personal data is stored and processed.

Randstad also believes it is well positioned for the future. The infrastructure of the T Cloud Public is based on OpenStack and can be flexibly developed further. It makes it possible to easily integrate micro services or container technologies. With container services, cloud resources can be better coordinated and scaled more quickly, for example. In addition, Windows licenses can be reduced or replaced by Linux licenses, which noticeably reduces costs.

insinno GmbH

Smart services from the cloud



Reference project:

insinno

Intelligent business applications built from modular software components: The medium-sized company insinno develops cloud-based business applications – individually, exactly according to customer requirements. The team offers all its services from a single source, from requirements management and technical content design to implementation and operation. The internationally-operating company was founded in 2010 and has locations in Germany and Spain and for its digital innovations it relies on the secure IT infrastructure from the T Cloud Public. Thanks to the transparent self-management of resources, the insinno's administrative workload is significantly reduced compared to with the previous provider. Above all, however, the software company can score points with its customers with the certified, GDPR-compliant cloud environment. The customers can also choose whether they want to use separate environments or shared services from the T Cloud Public for their applications.

At a glance

- **Task:** insinno offers tailored business applications – fast, cloud-based, and individual. To do this, the company, whose customers include insurers and major industrial companies, needs stable, secure cloud services from Europe.
- **Solution:** insinno relies on GDPR-compliant, flexible resources from the T Cloud Public. Elastic Cloud Server, Database Services, Object Storage Service, and Backup Services ensure a stable operation. insinno manages its resources independently and can easily add new servers.
- **Result:** The T Cloud Public reduces insinno's administrative workload and enables more speed in the technical implementation. The multiple-certified resources convince customers. And insinno can even work with organizations that are BaFin-regulated or belong to critical infrastructures.

The reference in detail

insinno GmbH

The medium-sized software provider insinno develops tailored business applications. And it does so much faster than the competition. This is because the company clarifies the customer's needs and goals – both business and technical – right from the start and translates them into clear requirements for business and IT. These are met by insinno thanks to a core of thousands of tried and tested basic components in combination with individual solution components. The advantages? insinno provides its customers with exactly the applications, interfaces, and functions they need – all from a single source. There are no delays or misunderstandings, for example, due to the development and subsequent operation being handled by different service providers.

Customer pain points

From chatbots for application processes to logistics portals – all of the solutions that insinno offers are cloud-based. In this way, the company increases the flexibility, stability, and availability of the applications around the globe. The biggest hurdle is security. This is because numerous customers of the Heidelberg-based company process sensitive or personal data in their applications and, depending on the industry, are subject to the regulatory requirements of the German Federal Financial Supervisory Authority (BaFin). The software company's customers include large German insurers such as HDI and corporations such as BASF. In order to dispel their concerns and meet all the different requirements, insinno was looking for a cloud provider with GDPR-compliant data storage in Europe and all the required certifications. Other stipulations included stable operation of the cloud infrastructure and backup services, flexible and uncomplicated self-administration of the solution, and a convincing price-performance ratio.

How Deutsche Telekom solved it

insinno relies on the secure and flexible resources from the T Cloud Public as the basis for its business applications. The provider was able to convince the software experts in several respects. Data and applications are stored in the most secure way possible in Telekom's twin-core data centers in Magdeburg and Biere. As a major German provider, the cloud offering has all the required certificates – and the trust of its customers. Christian Michel, Managing Director of insinno, knows that this is particularly important: "Data protection officers, among others, are involved in our discussions with customers. When we bring the T Cloud Public into play, they are immediately convinced." As a traditional company, Telekom also stands for reliability when it comes to the stability of operations. insinno uses Elastic Cloud Servers, database services, network services, the Object Storage Service, and the Load Balancer from the T Cloud Public. And it protects its customers from data loss with the Cloud Backup and Recovery (CBR) service.

Business impact

insinno can flexibly add and remove servers and services from the T Cloud Public at any time. This significantly reduces the administrative effort for the medium-sized company. It can score points with its customers by having the T Cloud Public as a partner for hosting and operation. And it is also a potential provider for companies from regulated industries. Telekom's cloud offering with comprehensive certifications also shortens time-consuming data protection reviews and audits.

Thank You!

