

Press release

German Edge Cloud GmbH & Co. KG



New digital learning and working platform for Hesse's schools supports teaching and learning and delivers what it promises in the age of coronavirus

German Edge Cloud teaches a lesson: Cloud solution for Hesse's school portal copes with high demand

With a tablet computer instead of a blackboard: In schools, the future is a digital one. The coronavirus situation makes this quite clear. Since the start of the 2020/21 academic year, Hesse's school portal has been used as a digital educational learning and working platform for teachers and students. German Edge Cloud (GEC) provides services such as a cloud architecture based on the requirements for scalability and the special features of educational activities. GEC's services permit high usage figures and make the portal easy to use. This was crucial at the start of the year as Hesse's school portal experienced an enormous demand on the first day of school and – unlike other federal states – coped without any problems. Hesse expects up to about 2.5 million users in the future.

Eschborn/Frankfurt, 27 January 2021 – Almost 100,000 users accessed the Hesse school portal simultaneously at around 9 a.m. on the first school day after the Christmas holidays, the Ministry announced. There had been almost 54,000 users at the previous peak on 16 December. Operations ran smoothly despite the high demands placed on the platform – German Edge Cloud's scalable cloud architecture had certainly paid off.

The "Schulportal Hessen" has been in existence for more than ten years and has developed into an extensive set of applications and services over the years. By the summer of 2020, some of these applications had been

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expanded and migrated to a scalable cloud environment to make them available to every school in Hesse as a user-friendly platform, starting from the 2020/2021 school year. To do so, the Hesse Ministry of Education and Cultural Affairs as the highest school supervisory authority of the federal state, together with the “HZD” (the Hesse state administration's central IT service provider), engaged German Edge Cloud, a member of the Friedhelm Loh Group.

COVID-19 developments had pushed the previous school portal to its limits

According to Hesse's Ministry of Education and Cultural Affairs, around 450 of the 2000 schools in the state had been listed in the school portal before the coronavirus crisis. And that's not all: “The suspension of regular school operations and the subsequent closure of schools to prevent COVID-19 increased the demands and the number of participants rapidly. Ninety per cent of state secondary schools now use the platform. Some temporary functional restrictions and severe overload did occur because of rapid growth.”

The previous server and application architecture had not been designed for home-schooling. To stabilise the system to allow widespread use and to enable a reliable and powerful future application and scaling, the system had to be put on a new technical foundation. German Edge Cloud relies on dynamic resource expansion to compensate for spontaneous peak loads. This way, the portal can be used by up to 2.5 million users.

A solution from German Edge Cloud for high performance and data sovereignty

Consequently, Hesse's Ministry of Education and Cultural Affairs (HKM) issued a call for projects to implement

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a cloud architecture that could be used from within the Internet. The service was to include, as far as possible, the cloud-native hosting of a section of the digital school platform. Specifically, it incorporates the basic “PaedOrg” applications. The aim is to enrich the primary platform with additional services such as Moodle and Mahara and video streaming and other collaboration and data exchange applications.

Specifically, the system’s requirements in terms of cloud readiness, scalability and the special features of educational operation need to be considered. These needs include, for example, dynamic load balancing and cushioning unpredictable peak loads.

German Edge Cloud, based in Eschborn near Frankfurt am Main, was able to convince Hesse’s Ministry of Education and Culture through its expertise in hosting and in application management; the company then designed a new and scalable architecture for the portal. GEC’s OpenStack platform means that all the technical solution’s resources can be managed from the cloud and makes operation easy thanks to a user-friendly visual dashboard.

Secure and confident management of data

Data protection and sovereignty were key criteria leading to the German Edge Cloud order because all the data on the schools, teachers, and pupils must be protected during the necessary networking via clouds.

These data security and sovereignty objectives are also being pursued by the large-scale GAIA-X project initiated by Germany’s Federal Government and supported by the State of Hesse, among others. Professor Friedhelm Loh, Owner and CEO of the group, was one of the initiators of this significant project launched by Peter Altmaier,

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Germany's Federal Minister for Economic Affairs and Energy in autumn 2019. The first solutions for Gaia-X are already being deployed at Rittal's Industry 4.0 plant in Haiger. Rittal is German Edge Cloud's largest sister company.

Hesse's Ministry of Education and Cultural Affairs evaluates the project implementation phase very positively: "The Hesse school portal could be migrated smoothly. The platform has been hosted by German Edge Cloud since November 2020, and it has proven itself by its stability even at very high – access times such as at the start of the year. In parallel, experts are continuously improving the platform to keep it fit for the future. GEC is already working on the next iteration level."

(5,724 characters)



Caption(s)

Image 1 (fri20254800): Hesse's state school portal experienced an enormous rush on the first day of school and – unlike other federal states – coped with it easily. German Edge Cloud (GEC) provides services such as a cloud architecture based on the requirements for scalability and the special features of educational activities.

Image 2 (fri20254700): In the future, Hesse expects up to 2.5 million people to use the its school portal.

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About German Edge Cloud

German Edge Cloud (GEC) specialises in edge and cloud systems for data-sensitive companies. The goal of GEC's solutions is to make data quickly, easily and securely available in networked environments

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and to give the customer full data sovereignty. Above all, the solutions support modern data-intensive and performance-critical use cases.

In association with partners from industry and research, solutions that can be quickly and easily implemented are developed. Companies from different industries can use these solutions to solve digitisation challenges with greater efficiency and so achieve digital added value.

GEC acts as a developer and service integrator for flexible turnkey solutions and offers both its own and partner-related industry-specific systems with the appropriate mix of edge, private and public cloud elements.

German Edge Cloud integrates and operates hybrid private edge cloud infrastructures from Infrastructure as a Service (IaaS) to Platform as a Service (PaaS) and industry-specific applications in the Software as a Service (SaaS) model. As a founding member of the "GAIA-X" project, German Edge Cloud pursues the goal of interoperable platform solutions without Platform – from the customer's perspective.

German Edge Cloud belongs to the owner-managed Friedhelm Loh Group. The group maintains a global presence, with 12 production sites and 96 subsidiaries across the world. It has 12,100 employees and posted revenues of €2.6 billion in fiscal 2019.

www.gec.io and www.friedhelm-loh-group.com