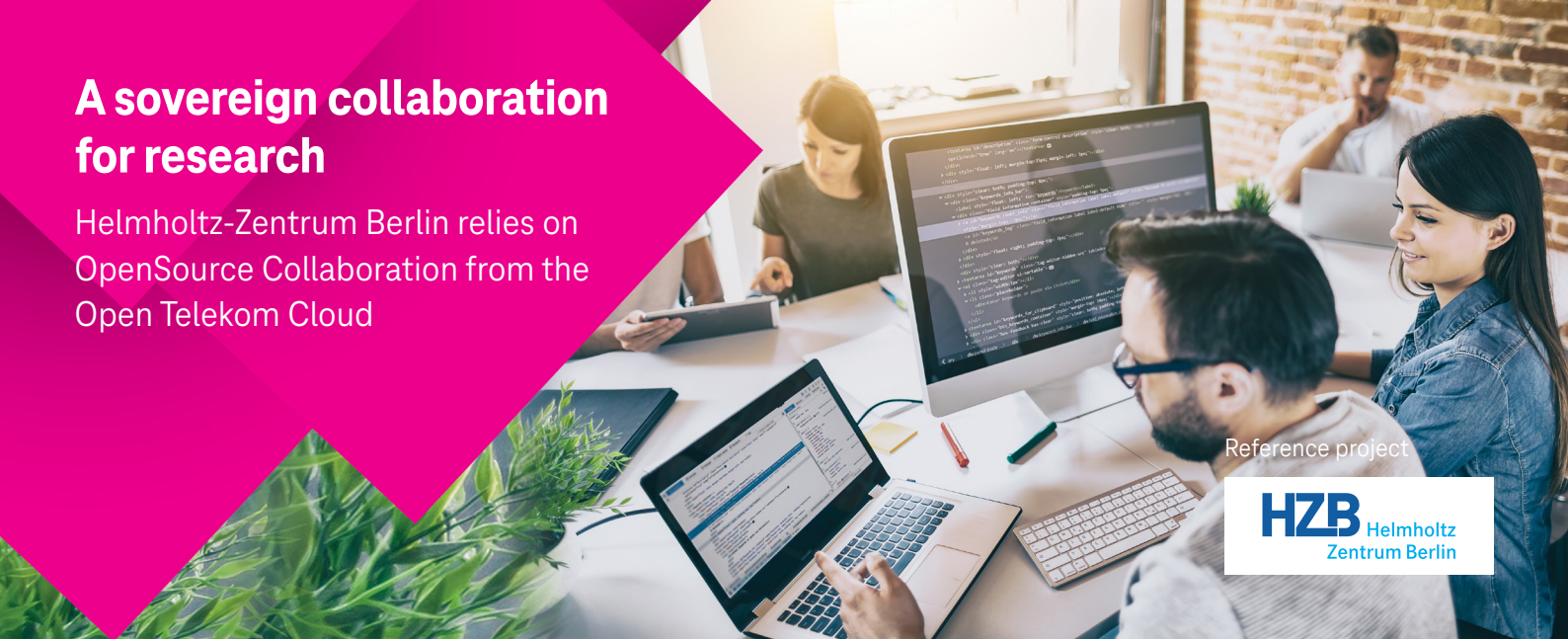


A sovereign collaboration for research

Helmholtz-Zentrum Berlin relies on OpenSource Collaboration from the Open Telekom Cloud



Reference project

HZB Helmholtz
Zentrum Berlin

“T-Systems put a package together for us in nearly no time at all and proved to be a reliable, competent partner whose primary objective was to help us – and acted pragmatically to do so.”

Ingo Heinzl, Head of ApplicationServices, Helmholtz Center Berlin for Materials and Energy (HZB)

Cutting-edge research for major challenges – that’s the motto of Helmholtz-Gemeinschaft Deutscher Forschungszentren e. V. (the Helmholtz Association of German Research Centers). Founded in 1995, its 44,000 employees and budget of over 5.8 billion euros (2021) make it one of the world’s largest scientific research organizations. Institutes like the Alfred Wegener Institute in Bremerhaven, DESY in Hamburg, DKFZ in Heidelberg, KIT in Karlsruhe, and the Jülich Research Center all do research under the umbrella of the Helmholtz Association. Many Helmholtz centers are part of the European Open Science Cloud and Germany’s national research data infrastructure.

The Association has a footprint in Berlin with the HZB, the Helmholtz Center for Materials and Energy. At two sites in Berlin, Wannsee and Adlershof, this institution conducts research on technology development, applied physics, and chemistry with respect to achieving a climate-neutral society. Research topics include next-generation solar cells, capturing sunlight to generate green hydrogen, and new types of batteries. In professional circles, the HZB is known for its X-ray source BESSY II. The opportunities available at the institution also attract guest scientists from around the world.

Based on its members, the HZB is considered to be a public-sector facility. The work of its more than 1,200 employees is funded largely by the German government and the State of Berlin. The HZB is active in the Helmholtz-wide MALTHGF working group, which aims to establish a sovereign IT system – in line with the German government’s digital strategy. The HZB had contact with T-Systems and started a trial for the OpenSource Collaboration service, an alternative to the common Microsoft products for collaboration.

The HZB fell victim to a cyberattack in mid-June, 2023, forcing the institution to shut down its IT systems completely. Among other losses, the scientists could no longer access the HZB-internal collaboration services, posing a serious disruption to their research work. The HZB needed a solution – and quickly – to enable its scientists to get back to work. The IT managers approached T-Systems and asked them to accelerate the rollout of the OpenSource Collaboration solution. As such, the hacking attack became the catalyst for switching over to open source-software.

At a glance

- Hacking attack caused total IT failure
- Search for fast alternative collaboration solution
- Replace the Microsoft suite
- OpenSource Collaboration from T-Systems: Grommunio, Jitsi, Nextcloud, Mattermost
- Change of the back-end system: Establishment of the Open Telekom Cloud
- Solution implemented in just two weeks
- Execution of digital strategy: Sovereign workplace on open source
- Attractive price

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Reference in detail

The challenge

Daily newspaper Tagesspiegel got straight to the point: “Unable to work for months? Helmholtz-Zentrum Berlin battles with the consequences of a hacking attack”. No email, no SharePoint – all the internal IT systems had to be frozen and subjected to a forensic examination. At the same time, the team under Head of Application Services Ingo Heinzel began searching for a fast solution to give the scientists efficient workplace solutions for collaboration again.

“We benefited from the fact that we had already evaluated OpenSource Collaboration from T-Systems,” explains Heinzel. “We had already classified the service as a potential future solution as part of the sovereignty discussion. But it was unclear how quickly we would be able to implement it. We decided to find out just how fast T-Systems could be.”

The solution

Heinzel contacted T-Systems. Then everything went quickly. Marten Bütow, Tribe Lead Collaboration Services, got the ball rolling for the agile project at T-Systems. He addressed the Open Telekom Cloud team and Matthias Greska from Cloud Sales. The technical solution and the contract with the HZB were set up concurrently. “In principle, the technical blueprint was already there. As a result, everyone knew what they needed to do,” explains Bütow.

As the Open Telekom Cloud team was setting up a tenant for OpenSource Collaboration, the requirements on the company side grew. In addition to an alternative for groupware/Exchange, the

HZB wanted to have a full collaboration suite right away, including a videoconferencing system, chat, and file shares. The groupware solution by Grommunio was joined by Mattermost as Chat, Jitsi as videoconferencing system, and Nextcloud as file-share system.

The HZB solution was built according to the blueprint, which meant restructuring the entire collaboration back-end while the front-end clients (such as Outlook and Thunderbird) were retained. As a result, the work environment was preserved for both mobile and stationary user devices. The scalable tenant in the Open Telekom Cloud was made available within a week, followed by the complete collaboration back-end for OpenSource Collaboration one week later. This also included setting up a native LDAP – utilizing the data that was extracted from an SAP system that the HZB had outsourced to an external partner and was therefore unaffected by the cyberattack.

The HZB initially decided to forgo a data migration, leaving one final question: How to send the access credentials for the new system to the employees securely. “We found a pragmatic solution here, too: We simply handed out the printed access credentials by internal mail,” explains Heinzel. “We concluded the contract in parallel to the technical work, enabling us to close the entire project package completely,” summarizes Matthias Greska. In the end, 1,200 employees were able to resume their work within three weeks. In the meantime, the system now hosts 2,000 accounts – guest scientists and research assistances also have access to the new collaboration services.

Customer benefits

The HZB solved two problems at once with OpenSource Collaboration. Firstly, the research institute minimized the impact of the hacking attack: The 1,200 employees were able to access fully-equipped collaboration features again in nearly no time at all. At the same time, the HZB set course toward sovereignty: The back-end system is based fully on open source and is provided from a European cloud.

Meanwhile, the users were not impacted by the fundamental changes to the back end: They continued to work with the established client software – regardless of device. Scalability and the technical architecture also let them access the same account from different end devices concurrently – a feature designed specifically for scientists. The package is rounded out by a highly attractive price, which is much lower than the costs for the Microsoft suite.

The Head of Application Services summarizes: “T-Systems put a package together for us in nearly no time at all and proved to be a reliable, competent partner whose primary objective was to help us – and acted pragmatically to do so”.

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