

# Case Study

## LGL Baden-Württemberg

»The Fujitsu Cloud gives us freedom to take immediate action. If we require additional server and storage resources, I no longer have to put aside significant amounts of money to expand our in-house storage and computer performance. Instead, I book Infrastructure as a Service in the cloud as and when we need it«

Hansjörg Schönherr, President of the State Office for Geographical Information and Land Development Baden-Württemberg



### The customer

“Geographical information” refers to data about objects and physical features in a specific area. The geography of the land can be captured and depicted using a variety of measuring techniques. The data recorded through this process is processed and refined, made available by authorities and passed to third parties. This is one of the key areas of focus for the Landesamt für Geoinformation und Landentwicklung (LGL, State Office for Geographical Information and Land Development Baden-Württemberg) as the measurement, land consolidation and resettlement authority in the German state of Baden-Württemberg. The field of “land development” covers measures such as reclassifying uneconomically developed plots or purposefully redesigning the road network. The results of these constant measurements and changes feed into incredibly accurate maps that modern authorities such as the LGL can provide to the public in digital format.

### The customer

Country: Germany  
Industry: Public administration  
Founded in: 2009  
Employees: 650  
Website: [www.lgl-bw.de](http://www.lgl-bw.de), BW Map Mobile in the App Store



### The challenge

Flexible and secure data center resources that can be provided quickly whenever the Baden-Württemberg State Office for Geographical Information and Land Development (LGL) has additional demand, but which are located outside of its own internal service and data centers.

### The solution

FUJITSU Cloud IaaS Trusted Public S5  
Website: [welcome.globalcloud.global.fujitsu.com](http://welcome.globalcloud.global.fujitsu.com)

### The challenge

LGL's work is based on this ever-increasing amount of digital data containing new geographical information. The data is often gathered by the employees, but others are also involved: “We also rely on public participation,” explains Hansjörg Schönherr, President of LGL. “We run a system that allows the public to upload information to our database that they have gathered. We also provide digital maps to the public as open data, free of charge.” However, both of these features would have been problematic for the authority's internal service data centers: “because we do not want external people to be able to access them,” explains Schönherr. It was also clear that it would not be cost-effective to build an additional data center to resolve these problems.

### The solution

With the FUJITSU Cloud IaaS Trusted Public S5 service, the Baden-Württemberg LGL gets flexible data center resources at the click of a mouse. On the one hand, it can use the system to provide data for download, while on the other, the authority can rent storage space and server power to give the public the opportunity to upload their privately collected geographical information. The cloud data center is actually located in LGL's area of authority in the Baden-Württemberg town of Neuenstadt am Kocher near Heilbronn.

## The benefit

- High level of flexibility when collecting data with public participation
- No investment costs for additional resources
- Server, storage and network resources that can be scaled up or down at any time
- 24/7 monitoring of service availability in the Fujitsu Cloud data center
- Secure data storage within Germany
- Access from external (citizens) without access restrictions (e.g. by authorities networks)

## The benefit

LGL has three offices in Stuttgart, Karlsruhe and Kornwestheim. The authority's internal service and data centers are located in the capital of Baden-Württemberg, Stuttgart, and Karlsruhe. "Both of these sites have very strict security regulations," says Hansjörg Schönherr. "It would not be possible to carry out spontaneous projects, and those involving public participation, using their systems." And this is where the Fujitsu Cloud really fills a key need. "The cloud provides an excellent operating model for us," reports the President of LGL. "When it comes to short-term demand, the cloud is much more cost-effective. I have no problems with procurement and can start a project within just a few days, and finish it without having the hardware then lie around not being used."

Schönherr describes one of his favorite projects: A large secondary school in Baden-Württemberg wanted to know which routes its pupils took when travelling to school by bicycle. "To do this, we developed our own software so that every pupil could digitize their personal route and upload it to us in the Fujitsu Cloud," explains Schönherr. "We then brought all of the information together to discover where any particular danger zones were, such as where a majority of the pupils would cross a main road." Some 1,000 pupils uploaded their data to the storage area that LGL had booked in the Fujitsu Cloud. The authority uses a pay-per-use payment model so that it is only charged for the resources that it actually uses. These can be booked, and cancelled, quickly and conveniently via a self-service portal.

"The local authority is then obliged to increase safety at possible danger zones and redesign them where necessary," says Schönherr. "Based on the pupil data that we processed, the authority responsible can make the pupil's routes safer in a targeted way. This project was only possible with the Fujitsu Cloud. Using the cloud means that our security requirements, which would otherwise make access from outside completely impossible, do not apply."

LGL values the extreme flexibility of the cloud system: "Whether ten, a hundred or a thousand pupils accessed the cloud at once, it does not affect us technically at all," says Schönherr. This benefit also works the other way around. The LGL also provides digital maps of Baden-Württemberg that people can download free of charge.

## Products and services

- Services: FUJITSU Cloud IaaS Trusted Public S5
- Certified data center in Germany, Public sector contract basis
- Business Services: Consulting Geo IT-Infrastructure

"When we provide geographical information free of charge, and, for example, our minister publicizes this fact to the public, I don't run the risk of embarrassing our institution by having it go down," says the President of LGL. "With the Fujitsu Cloud, I can counteract the problem very easily, whereas our own servers could not grow to meet such increased demand." And so far, nobody has reported failures or waiting times when downloading the free maps.

LGL also uses the Fujitsu Cloud to provide the paid map tiles for the BW Map Mobile app. Fujitsu Cloud Secure Space provides secure online storage for exchanging data with mobile devices and PCs. This solution ensures that the requirements for highly-secure, traceable exchanges of data are met, and that confidential documents are shared appropriately, based on a standardized online storage environment. This flexibility is also provided with the service offer mobile BW Map proof. The provision of official geodata carried out from the Fujitsu Cloud.

LGL is also planning additional uses for the FUJITSU Cloud IaaS Trusted Public S5 solution. "Aerial images of Baden-Württemberg are taken fairly regularly," explains Schönherr. "We have been storing the raw data for these images on additional hard drives in-house. The Fujitsu Cloud would be a great solution for this in the future." This would mean that only the processed image data that the LGL must retain for a longer period of time would need to be stored in the internal service and data centers.

## Conclusion

The State Office for Geographical Information and Land Development Baden-Württemberg is using the Fujitsu Cloud to achieve greater flexibility and the freedom to work on more spontaneous projects, while still maintaining a clear overview of the costs. Hansjörg Schönherr, President of the authority, draws a positive conclusion:

**"With the Fujitsu Cloud, we can cover practically any spike in demand. If I had attempted to meet spikes in demand for storage space with the internal service and data centers, I would have constantly had far too many hardware resources. I no longer have to worry about whether our capacity is sufficient, regardless of how many simultaneous users we have. The simple administration, high availability, low maintenance downtime and secure access are all great benefits of the cloud system."**

Hansjörg Schönherr, President of the State Office for Geographical Information and Land Development Baden-Württemberg

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