

The background of the top half of the page is a photograph of a diverse team of professionals in a modern office setting. A woman with glasses and a green shirt is seated at a desk, looking towards the right. Two men are standing behind her, looking at a document on the desk. The office has large windows and computer monitors in the background.

## Establishing *a hybrid cloud* for a public-sector platform

## Capgemini and Google Cloud create one of the first secure solutions for the German public sector

The shift to the cloud is widespread but public-sector organizations face different challenges when making the move. Traditional IT systems are often mandated, limiting innovation and new services. But even now that new legal frameworks make cloud deployments possible, it can be challenging to uncover the technology's full potential in digital-transformation projects. However, such an initiative delivered substantial benefits to residents while simplifying administrative procedures, adhering to compliance requirements, and delivering self-training.

**Client:** German government agency

**Region:** Germany

**Industry:** Public sector

**Client Challenge:** A public sector company wanted to accelerate the time-to-market for its services and move to a hybrid cloud environment.

**Solution:** Following an assessment with Capgemini, the organization chose Google Cloud with sovereign controls to manage and store its highly sensitive, controlled, and classified information on servers within German borders.

**Benefits:**

- Created a secure hybrid cloud environment that adheres to special government requirements around security and privacy
- Accelerated digitalization projects while adhering to legal and compliance requirements
- Agility to scale Google Cloud as needed

An on-premises solution was not an option for one government agency in Germany, so it needed digital sovereignty that avoided vendor lock-ins and data retention. The new system had to be scalable and offer identical infrastructure for three departments. In addition, the organization wanted help maintaining its IT landscape and scaling up at the necessary speed. This pushed the agency to engage Capgemini as its partner, gaining access to industry-leading expertise related to the public sector and substantial experience with various cloud technologies.

## Providing a blueprint for cloud

Working with Capgemini, the organization underwent a lengthy pre-qualification phase. As a result, the team chose Google Cloud as the best fit for its needs since it was able to ensure data could be maintained in line with German security parameters and regulations. Throughout this process, Capgemini helped the agency assess, evaluate, and develop a criteria catalog as part of the selection in order to boost innovation on the new platform. The organization relied on Capgemini to build the infrastructure quickly so they could move into maintenance mode.

For Google Cloud, it's one of the first implementations in a German public service organization and creates a blueprint for other institutions to follow since it is completely compliant with German and European Union regulations. Capgemini provided the platform expertise and infrastructure that connects the pieces.

The sovereign cloud ensures data, operational, and software control with continuous monitoring, so the government agency can use cloud services in compliance with all regulations. This was accomplished

with the Google Cloud solution providing data sovereignty controls that include encryption keys, administration access, service deployment locations, and partner services (i.e. logs review and BYOID).

## Creating a secure cloud environment

The open and solution-oriented cooperation between Capgemini and Google Cloud resulted in a hybrid cloud-based platform that can be the foundation for other public sector organizations. In the pilot operation, the organization used Cloud Armor from Google Public Cloud to secure its infrastructure and networks at the lower Open Systems Interconnection (OSI) levels. Security measures have also been applied on the application and user level with the help of Google Cloud tooling.

Throughout this project, the agency maintained digital sovereignty, with a focus on the opensource Kubernetes model. Originally designed by Google, this containerization model allows the organization to execute source code in a safe container or move it to another area in isolation, so it does not impact any other infrastructure. There are three identical project instances on Kubernetes clusters, with the ability to add more services easily. Through its partnership with Capgemini, the organization now has a hybrid cloud platform with survivability, full segregation, and sovereign controls to ensure it meets all requirements and regulations.

Now that the blueprint is established, other ministries, departments, and governments in Germany are exploring the options, knowing that Google Cloud can deliver compliance in a restricted environment.



# About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

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