



# Modernization of the German Healthcare System

With the development, establishment, and operation of the infrastructure services for the testing of the electronic healthcare card, Arvato Systems has taken on one of the most complex IT projects worldwide.

## Background Situation

The introduction of the electronic healthcare card (eGK), including the establishment of a telematics infrastructure (TI) was decided by the „Legislature in the modernization of Statutory Health Insurance“ and is laid down in the Social Code (§§ 291, 291a SGB V). gematik was founded by the umbrella organizations of the service providers and cost bearers of the healthcare system to introduce the eGK and the TI to modernize the German healthcare system. During the introduction of the eGK, an interoperable and compatible information, communication, and security infrastructure will be established as a nationwide „health telematics“ in the German healthcare system.

## Vision

A uniform and central TI links all participants in the German healthcare system with each other. Data can thus be exchanged and processed electronically securely, quickly, and easily. The aim of the new „Arena for Digital Medicine“ is to increase user-friendliness with the help of TI 2.0 and to consolidate the future of digital healthcare thanks to interoperable interfaces. The aspects of security and stability are aspects are the focus of all considerations, as they were with TI 1.0. The goal is to provide a scalable infrastructure to enable the secure exchange of data within the and secure data exchange within the health system.



## The Customer

- gematik was founded as the National Agency for Digital Medicine by the associations of the service providers and payers of the German healthcare system.
- The foundation, existence, and purpose of gematik are based on legal foundations (Social Code, Fifth Book).
- Goal and mission: The introduction and responsibility for the Telematics Infrastructure (TI) as the central platform for digital applications in the German healthcare system.
- gematik has strong and competent institutions at its side. The shareholder structure is made up of 51% of the Federal Ministry of Health and other bodies such as the GKV Spitzenverband.

## Industry

- Public Sector/Healthcare





## Solution

The TI includes a variety of highly integrated components: complex Public Key Infrastructures (PKI) used for digital encryption and signatures, Wide Area Networks (WAN) designed for secure data transmission over long distances, data center services, software development and software distribution. All components and services are quality-assured and operated in Arvato Systems' German data centers. In addition, a special security management system was developed and implemented for the overall security of the TI. Within this framework, Arvato Systems will take over the development, set-up and operation of the central infrastructure services and environments, such as the central network with infrastructure services, Public Key Infrastructures (PKI) and other central services in terms of end-to-end responsibility (online rollout (stage 1), Lot 3). Furthermore, the connection of the KV-SafeNet backbone as an example of existing networks of the service providers is part of the order.

## Case Overview

### Task

- Development, construction, and operation of a central and secure infrastructure for testing the of the electronic healthcare and other digital health applications

### Technology

- Public Key Infrastructure (PKI)
- Wide Area Networks (WAN)
- Virtual Private Cloud (VPC)

### Scope of Services

- Software Development
- Software Distribution
- Operation and further development of the Telematics Infrastructure

### Result

- Modernization and digitalization of the German healthcare system
- Networking of all those involved in the healthcare system – resulting in improvement of quality, transparency, and efficiency of treatment of patients
- Simplification of the exchange of information between all parties involved. Use of shorter, faster, and more secure communication channels
- Data center services are provided in the Arvato Systems' data centers at the certified locations in Gütersloh and Bielefeld in Germany

You have questions, need information or a contact?  
Get in touch with us.

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Arvato Systems is an international IT specialist that supports major companies in Digital Transformation. We stand for strong industry knowledge, in-depth technology expertise and a clear focus on customer requirements. Working as a team, we develop innovative IT solutions, transition our clients into the Cloud, integrate digital processes, and take on IT systems operation and support. As part of Bertelsmann, we are built on the solid foundations of a German global corporation. At the same time, we rely on our strong strategic partner network with top international players such as AWS, Google, Microsoft and SAP. We make the digital world easier, more efficient and more secure and our customers more successful. We Empower Digital Leaders.

