

# Modernizing Geo- Information Systems with Cloud

## Industry

Public Sector

## Service

Cloud Services

## Technology

Microsoft Azure

## Delivery Model

Hybrid

## Client Profile and the Initial Situation

### About the Austrian Federal Forests

As the nature enterprise of Austria, the Austrian Federal Forests (ÖBf) look after every tenth square meter of the country. They care for, protect and manage the natural resources of Austria - lakes, forests, mountains - in the sense of sustainability: Only as much is taken from nature as grows back.

The Austrian Federal Forests, as the largest provider of nature reserves, are responsible for 10% of the national territory, including 74 of the larger lakes and 15% of the forest area.

### Modernization of the Geo-Information System (GIS)

ÖBf operates a software service for the documentation and publication of geo-information. This software solution is further used e.g. by forestry institutions or the so-called Geo-Information system (GIS) for border surveying. GIS is made up of various components, including databases, several frontend servers, application servers, license servers, and routing servers.

The upgrade of the software client was the reason to evaluate the modernization of the service architecture and a possible cloud operation on Microsoft Azure with all its implications. Due to the current mix of components, a wide range of know-how was required, from software developers, software architects to cloud experts. An additional challenge was the small budget available for the implementation of the project.

The ÖBf were aiming to reduce operating costs and wanted greater flexibility in the use of resources. At the same time, this project served as a pilot project for the operation of services in the cloud to gradually switch from outsourcing to cloud operation with further workloads to take advantage of the benefits available there.

### Cost-effective implementation through cloud services and hybrid delivery

During the analysis and planning meetings, a potential cloud service architecture was designed as a proof-of-concept with ÖBf. The individual components were separated from the overall system. IaaS and PaaS options were compared, several possible service architectures were created and evaluated according to advantages and disadvantages. Finally, an implementation plan was developed for the selected option.

Following the planning phase, the designed service architecture was implemented on Microsoft Azure, and the individual components were migrated to the respective target service. Resulting challenges, such as the licensing of software solutions that are not intended for use in cloud environments, were solved directly with the respective vendor. Thus, a modernized version of the GIS was operational in Microsoft Azure within a few weeks.

## The impact to Business

Through a hybrid delivery model, Nagarro was able to complete the entire project within the confirmed project budget. Conceptually as well as communicatively, the issue was managed from Vienna, while experts from Nagarro's global Cloud Centre of Excellence were brought in to implement the migration or service configuration. In other words, the best of both worlds for the benefit of the client!

### All goals were met!

- **Lower operating costs compared to the previous operating model (outsourcing).**
- **Greater flexibility in the use of resources through the use of Microsoft Azure and scalable services**
- **A successful pilot project for the migration of server workloads to Microsoft Azure**





## Client Testimonial



“The modernization of our GIS as a pilot project for further digitization projects proved that operating in the cloud not only brings clear advantages in terms of costs but offers greater flexibility. The cooperation with cloud experts also guaranteed a smooth migration in the shortest possible time.”

*Rudolf Vierthaler*  
Stv. Leiter IT at Österreichische  
Bundesforste AG

## About Nagarro

In a changing and evolving world, challenges are ever more unique and complex. Nagarro helps to transform, adapt, and build new ways into the future through a forward thinking, agile and caring mindset. We excel at digital product engineering and deliver on our promise of thinking breakthroughs. Today, we are 10,000 experts across 26 countries, forming a Nation of Nagarrians, ready to help our customers succeed. [www.nagarro.com](http://www.nagarro.com)