TECHNOLOGY AT THE
SERVICE OF
ENVIRONMENT –
PROTECTED AREAS
MANAGEMENT SOFTWARE
DEVELOPED UNDER
EEA GRANTS



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# THE CLIENT

National Environmental Guard of Romania has recently completed a project financed by the EEA and Norway Grants. Its goal was to develop software increasing the efficiency of management of the protected areas in Romania.

The basic functionality of the program is to monitor the movement of animals through GPS tracking. Based on the data collected from the application, ecologists will be able to establish methodology for building corridors for large mammals, migratory fishes and birds.

# THE CHALLENGES

As main project contractor, Areus was responsible for designing, testing and deploying the software. The very first challenge was choosing the best data model and technology applied, in order to assure smooth processing of large amounts of visual data, such as live video streaming.

The next task assigned to Areus was correlating the data gathered from observations with the activities of forest rangers. Based on the location of the animals, it has to be determined whether there is enough food and shelter available for them.

Finally, the last stage of the project involved developing a mobile app, which includes all of the forementioned functionalities.

### THE OBJECTIVES

- Selecting the most suitable technology and data model for the project
- Determining the specific functionalities of the software
- Establishing a notification system addressed to forest rangers
- Developing a corresponding mobile application

CASE STUDY



# THE SOLUTIONS

Areus successfully fulfilled all of the above tasks. The Geographical Information System was chosen as a basis for the functioning of the application.

The software was programmed to stream live video footage from different locations, and, based on the image recognition, gather data about the presence of the animals. This allows the forest rangers to directly monitor not only the location, but also the health and behavior of the mammals, fishes and birds.

A corresponding mobile application was developed, allowing the forest staff to receive realtime information and react immediately.

Technologies used: Java Spring, PostGre SQL, PostGIS Add-on, Jasper Reports, OpenStreetMap

### ABOUT AREUS DEVELOPMENT

Areus Development is a leading software provider for the tech industry, based in Boston, MA. The company's mission is to provide better software sooner, and at a lower cost. We consider our clients to be our partners for which we bring to life innovative solutions that help businesses become a lasting success in the marketplace.

In every project, Areus brings a combination of industry knowledge, unique company culture and some of the best technical talent that can be found on the IT market. We keep it simple and we always keep our promises towards our customers.



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