# Serverless Computing

## Elements.cloud Case Study

## About Elements.cloud

Elements.cloud is a B2B SaaS platform which helps to visualize and organize business processes in the companies. It has a centralized interactive space for process mapping in the cloud that allows bringing a new level of operational excellence. The web application uses Salesforce integrations and is fully GDPR compliant. Among the main features, users can capture requirements, map processes, document Salesforce Organization, deliver user training, and provide governance.
https://elements.cloud/

## THE CHALLENGE

The primary business challenge for Elements.cloud was to create fully-tolerant, secure, GDPR-compliant process visualization and management SaaS product for Fortune 5000 companies that will have integration with Salesforce. The main technical challenge for Elements.cloud was to implement highly customizable process mapping and visualization web tool with auto-scalable and fully-tolerant back-end architecture on AWS.

## THE SOLUTION

We implemented a concept of highly-customizable diagrams with robust version control, applied Redis software for locking certain parts of data, created different security groups for different application layers, and installed appropriate instances types for various services. Also, we executed a shift from EC2 instance to partial serverless architecture, using AWS Lambda. Due to this transition, we made Elements solutions more cost-efficient with a lower need for infrastructure support.

## THE BENEFITS

### LAMBDA FUNCTIONS

We use 20 Lambda functions for data and file processing triggered by API Gateway and S3 events.

### SALESFORCE INTEGRATION

We bypassed Salesforce limits and developed two-way integration between AWS and Salesforce.

### SCALING AND SECURITY

We built an auto-scalable, faultless architecture that can work under any conditions and load.

## ABOUT TECHMAGIC AND AWS

TechMagic is a software development company, based in Lviv, Ukraine, with a narrow technology focus that helps startups and established enterprises to build remote dedicated teams.

AWS serverless application services enable users to build and run highly available, scalable, and cost efficient enterprise-grade applications without having to provision, manage, or patch servers.

## NEXT STEPS

To learn more about how AWS and TechMagic can help your business, please visit www.techmagic.co