



# IT Outposts

We build the new kind of teams and infra  
needed to improve digital economy

## About us

DevOps is a complex initiative that must be handled only with a sufficient level of profiled expertise. IT Outposts is your DevOps as a Service provider of choice if you are looking to hire a team of experienced DevOps engineers to help you cut infrastructure maintenance costs, boost the development team agility, automate CI/CD, and improve essential project processes all around

## What We Offer

DevOps Delivery

- Cloud migration
- Maintenance
- Security Hardening
- Monitoring
- Regular infrastructure audit

DevOps Transformation

- Create a seamless project architecture
- Optimize in-house budget and costs
- Automate CI/CD for faster time-to-market
- Coach internal teams
- Finalize MVP projects for production

# Our service offering

# 1

## Infrastructure and Architecture Design

We provide thorough work on a sturdy design backbone that will support your project no matter the field conditions, complexity of operations, and other requirements, and includes:

- Application containerization;
- CI/CD processes automation;
- Orchestration and Kubernetes deployment;
- Infrastructure monitoring and tracking

# 2

## MVP Scaling Services

We help properly scale your MVP solution, filling all the gaps, adding new powers, and optimizing it throughout to achieve the full-on launch stage state and introduce it to users with a bang, this includes:

- CI/CD processes investigation;
- Infrastructure scaling;
- Monitoring system configuration;
- Post-deployment adjustments

# 3

## Kubernetes Deployment

We engage in a process of automating and reducing the routine complexity of internal virtual environment processes in order to boost the performance all-around and streamline productivity, which includes:

- Cluster set up;
- Monitoring and logging;
- GitOps Approach for the most efficient cluster deployment;
- Dev team training

# 4

## Cloud Costs Optimization

We optimize your cloud management and maintenance costs by implementing some of the best cloud optimization and tweaking practices in the industry, with the particular services including:

- Infrastructure audit;
- Recommendations and forecasts;
- Historical metrics monitoring;
- Budgeting assistance

# 5

## Infrastructure Migration

We have field experienced professionals to most responsibly and smoothly move the whole legacy project infrastructure to a new and fresh product potential-boosting environment, which includes:

- Project migration preparations;
- Project migration process;
- Setting the stage;
- Support and maintenance

# How we work

Our ultimate goal is to supply you with market-defining DevOps practices implemented by seasoned professionals without making you go out of your way or burning a hole in your pocket. That's why we deliver business-changing opportunities and long-term cost-optimizing results in the most individually convenient manner. Here are the essential stages we usually implement when working with projects





# DevSecOps experience throughout the project SDLC

| Tasks types   | Description (typical tasks)   |
|---|---|
| Container Security                                    | <ul style="list-style-type: none"><li>Namespaces: processes running within a container cannot see, and even less affect, processes running in another container, or in the host system.</li><li>Each container also gets its own network stack.</li><li>Only trusted users should be allowed to control your Docker daemon</li></ul>  |
| Kubernetes clusters security                          | <ul style="list-style-type: none"><li>Clusters Isolation(private VPC),</li><li>IaC, GitOps approach-</li><li>Shift-left -part of shifting left security is integrating it into this feedback loop—ensuring that security issues are visible to all members of the team, during all stages of the software development lifecycle (SDLC);</li><li>PodSecurityPolicy is a built-in admission controller that allows a cluster administrator to control security-sensitive aspects of the Pod specification.</li><li>RBAC</li></ul> |
| Authentication, RBAC optimizing                       | Okta, Active Directory, IAM clouds policies, Vault for authorization and centralize secrets storage, minimize hardcoded(sensitive data)   |
| SAST, DAST -development process development procesess | <ul style="list-style-type: none"><li>Automatically check for vulnerabilities in the source code, OWASP Top 10;</li><li>Software composition analysis (SCA);</li><li>Dynamic Application Security Testing (DAST);</li><li>Unit and integration testing.</li></ul>   |
| Infrastructure Perimeter protection tools             | Firewall, VPN, TLC protocols  |
| CIS Security Benchmarcs                               | <ul style="list-style-type: none"><li>Operating systems benchmarks(MS, Linux);</li><li>Server software benchmark(VMware, Docker, and Kubernetes);</li><li>Cloud provider benchmarks(AWS, GCP, MS Azure);</li><li>Multi-function benchmarks.</li></ul>   |

# SLA

| Priority of tasks       | Description (typical tasks)   | Response to requests                               | Response time   | Status Reporting |
|-------------------------|---|--|-----------------|------------------|
| Blocker<br>(production) | <ul style="list-style-type: none"><li>• Production incidents that hinder the user experience,</li><li>• Service unavailability to users,</li><li>• Hacking attempts,</li></ul>                              | 24/7 - On call<br>Service desk                     | 30 minutes      | Every 1 hour     |
| Bug (dev/test)          | <ul style="list-style-type: none"><li>• Problems at the build stages and applications deployment, services;</li><li>• Adaptation of new services for CI / CD</li><li>• Debugging, troubleshooting</li></ul> | 08:00 - 20:00<br>Service desk                      | 1 hour          | Daily            |
| Planned tasks           | <ul style="list-style-type: none"><li>• Environments deployment, including for a new project;</li><li>• Services configuring;</li><li>• CI / CD automation</li></ul>  | 09:00 - 18:00                                      | 1-8 hours M - F | Weekly           |
| Maintenance             | <ul style="list-style-type: none"><li>• Updating versions of services and software</li><li>• Adding / clearing resources</li><li>• Access rights management</li><li>• Monitoring / logging</li></ul>        | dev/test - 09:00-18:00<br>production - 20:00-08:00 |                 | Monthly          |

# Benefits you get

1

## Full-on operational and tech support

Providing DevOps as a Service opportunities, we help smooth out the whole project workflow, streamline the flow of the essential data, and deliver thorough quality control while supporting the project throughout

2

## Some of the brightest minds in the industry

Hiring our DevOps specialists, you get the expertise that stood the test of time and experience with projects of any size and complexity delivered by seasoned pros for the benefit of your project

3

## Dramatically cut project costs

We help streamline workflow productivity, optimize SaaS cloud management and maintenance expenses, and avoid extra costs via intricate project development methods and market-leading techniques

4

## Dev team versatility boost

The ultimate result of our DevOps efforts is a team of project developers that is more engaged with the tasks, performs faster, and delivers a higher level of workflow quality at lower costs



# Our Case Studies



# Openware

Openware Inc. is a key blockchain software elaboration company with open source. The company's full-featured services let developers create new generation DeFi applications and enable businesses to run a reliable fiscal infrastructure prepared for the future.

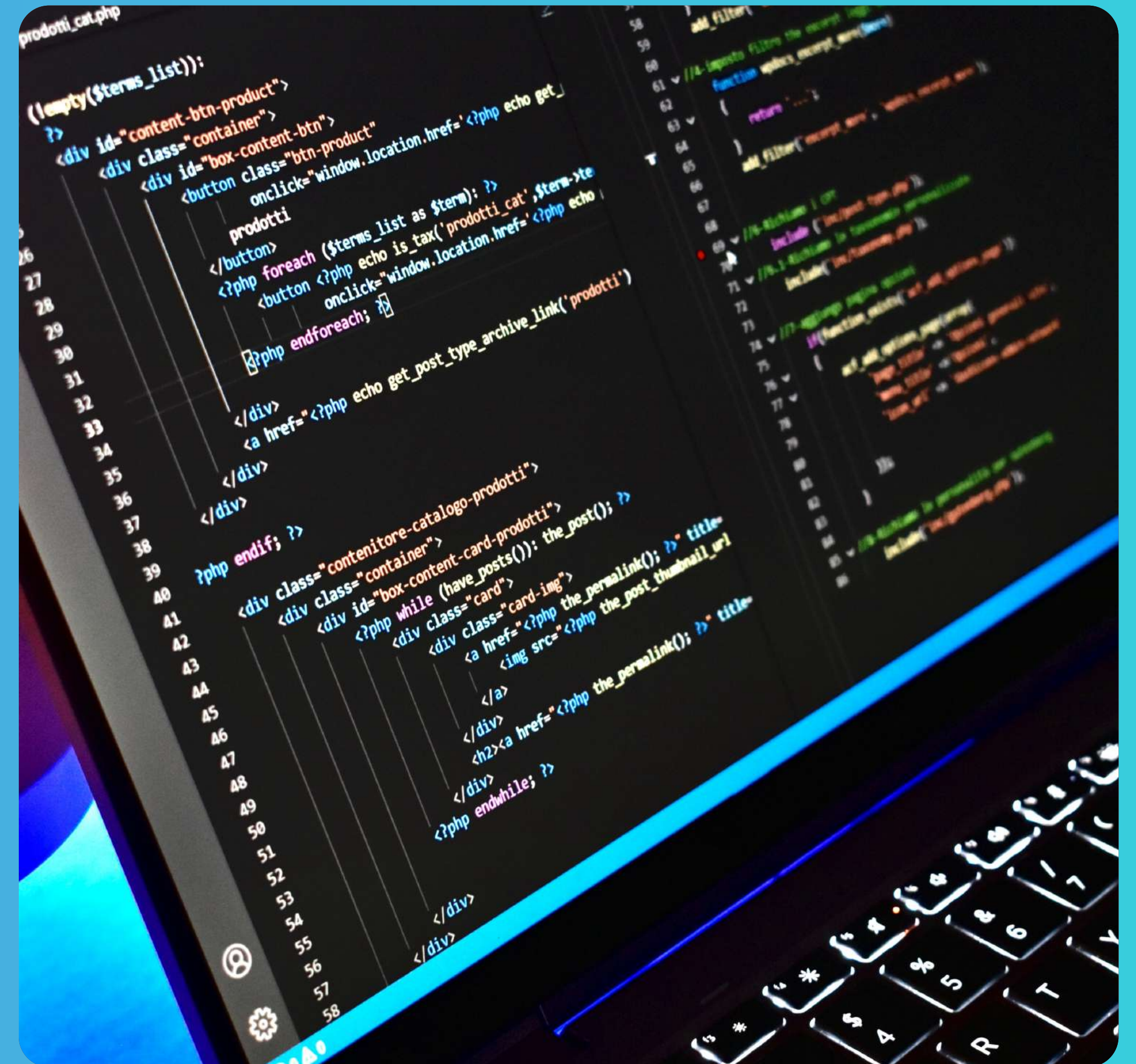


# Challenge

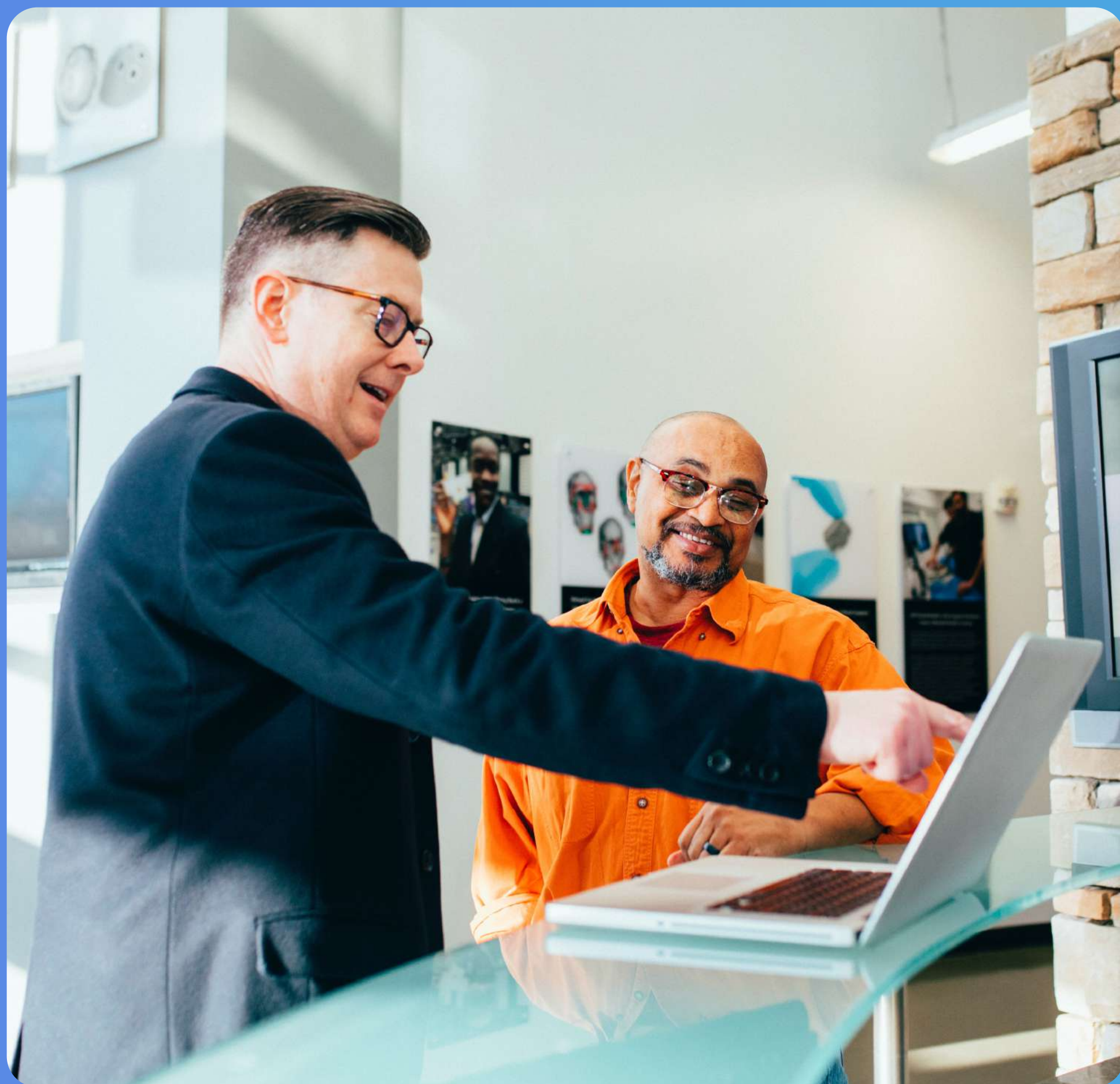
The task was to package Openware software for Centralex and Maxxer, working with them under a direct contract. We have a lot of experience and IT Outpost has an agreed partnership with Openware, for which we are technical and solution partners for the implementation of their decisions in the client's environment. We have ready-made technical documentation and successfully implement such cases in various niches.

The goal of the project was to develop a DevOps strategy and roadmap for implementing a new CI/CD stream with Kubernetes for distributed blockchain solutions, deploying and integrating project custom services with the main platform, implementing a central secret store and RACI matrix, enabling different types of deployments, and customizing flexible CI/CD flow

It was also necessary to set up various types of autoscaling with detailed monitoring of the use of cluster resources and project services, train a full-time team of engineers and developers, and accompany the process of delivering solutions to production, ensuring continuity and quick rollback







# Client requirements

Our the main objectives were:

- automate CI / CD processes in such a way as to ensure high-quality integration of OpenWare services with custom services of each project: Centralex and Maxxer;
- provide free delivery of updates to production;
- implement a GitOps approach so that the processes that integrated teams work on are transparent and minimize the human factor;
- give detailed documentation to the client, in particular about rollback (in case of failures) and fully adapt their own team development and DevOps into established processes

# Solution

1

The project began with an assessment and analysis of the infrastructure and working environment. Our team explored the requirements for the final result of the two companies

2

The primary goals were to implement the Openware software and develop a DevOps strategy and a detailed plan for implementing a new CI/CD stream with Kubernetes for distributed blockchain solutions

3

After that, our team tested the working environment on servers that did not interfere with the work of the company and ensured its continuity

4

For this reason, security is not affected. The process takes place with the participation of the engineers of the company that contacted us. That is, we do not request your confidential data, do not require access to the entrances, etc.

5

IT Outpost conducted direct training during the installation of a new product for Centralex and Maxxer employees. This is a great benefit, since the company already has a ready-made solution and employees know how to work with it, applying the practice right during the provision of the service

6

When we set up the necessary products of the Openware, everyone agreed that it would go to production. Their products are OpenDAX, an open source digital asset exchange, OpenFinex, a proprietary, open source software with machine learning components designed to enable fast and targeted order picking in an enterprise-grade trading environment, and ArkeBot, a open source software that permits you to realize and perform custom trading strategies on centralized burses and decentralized protocols.

7

Other major tasks included assisting product deployment among end customers, which included preparing cloud provider capacities, deploying environments (clusters), deploying services, setting up monitoring capabilities, etc.

# Mriiyar

Mriyar is a creator and provider of an AI-powered platform dedicated to auto parts sales management. The platform was mostly demanded for integration with customer marketplaces and had an infrastructure of an expanded MVP solution

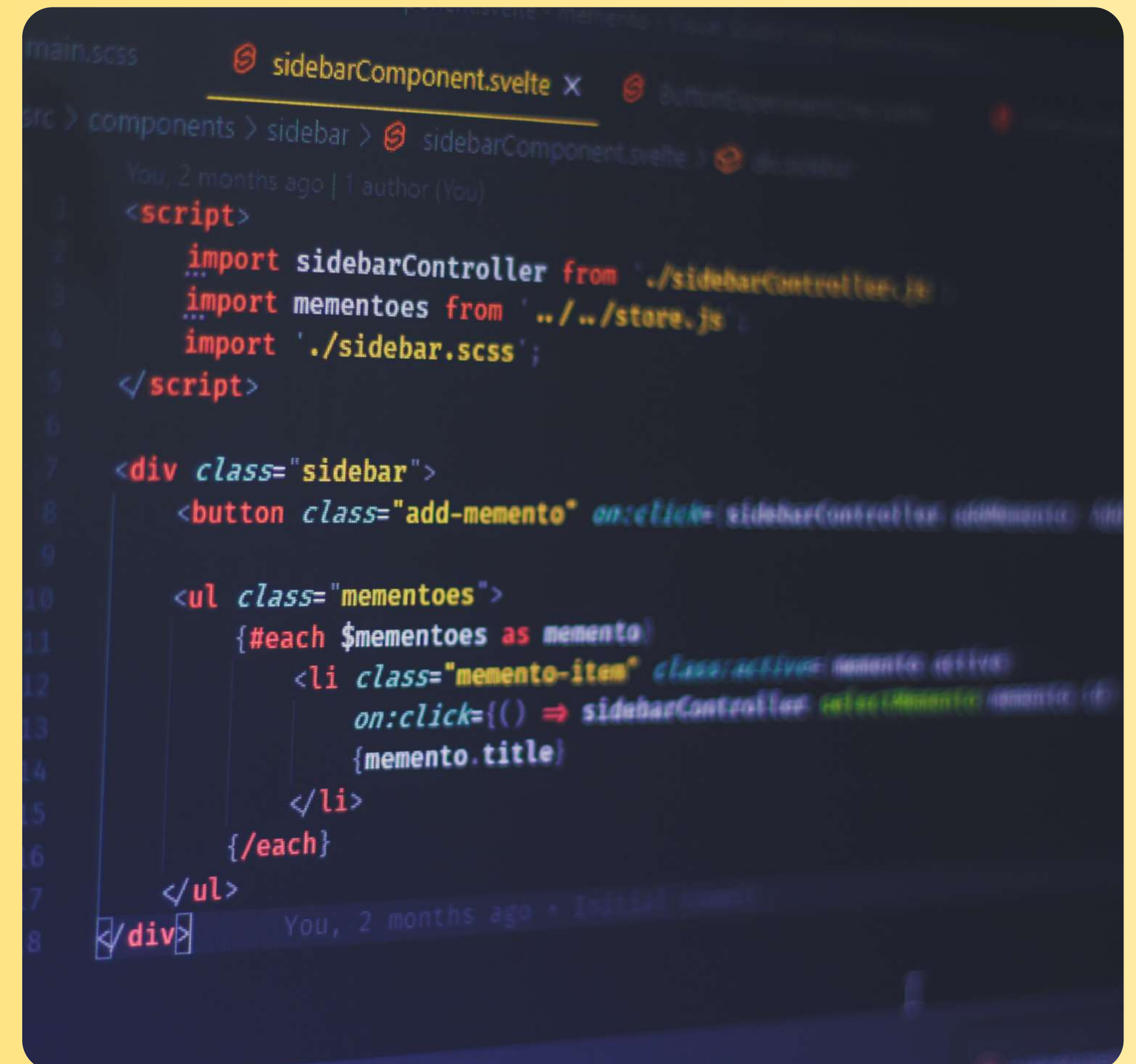


# Challenge

Since the expansion from the MVP stage, the client hadn't configured the tools responsible for resource utilization analysis.

The whole infrastructure deployment was carried out via Ansible so we needed to integrate the monitoring deployment playbook with the general project playback.

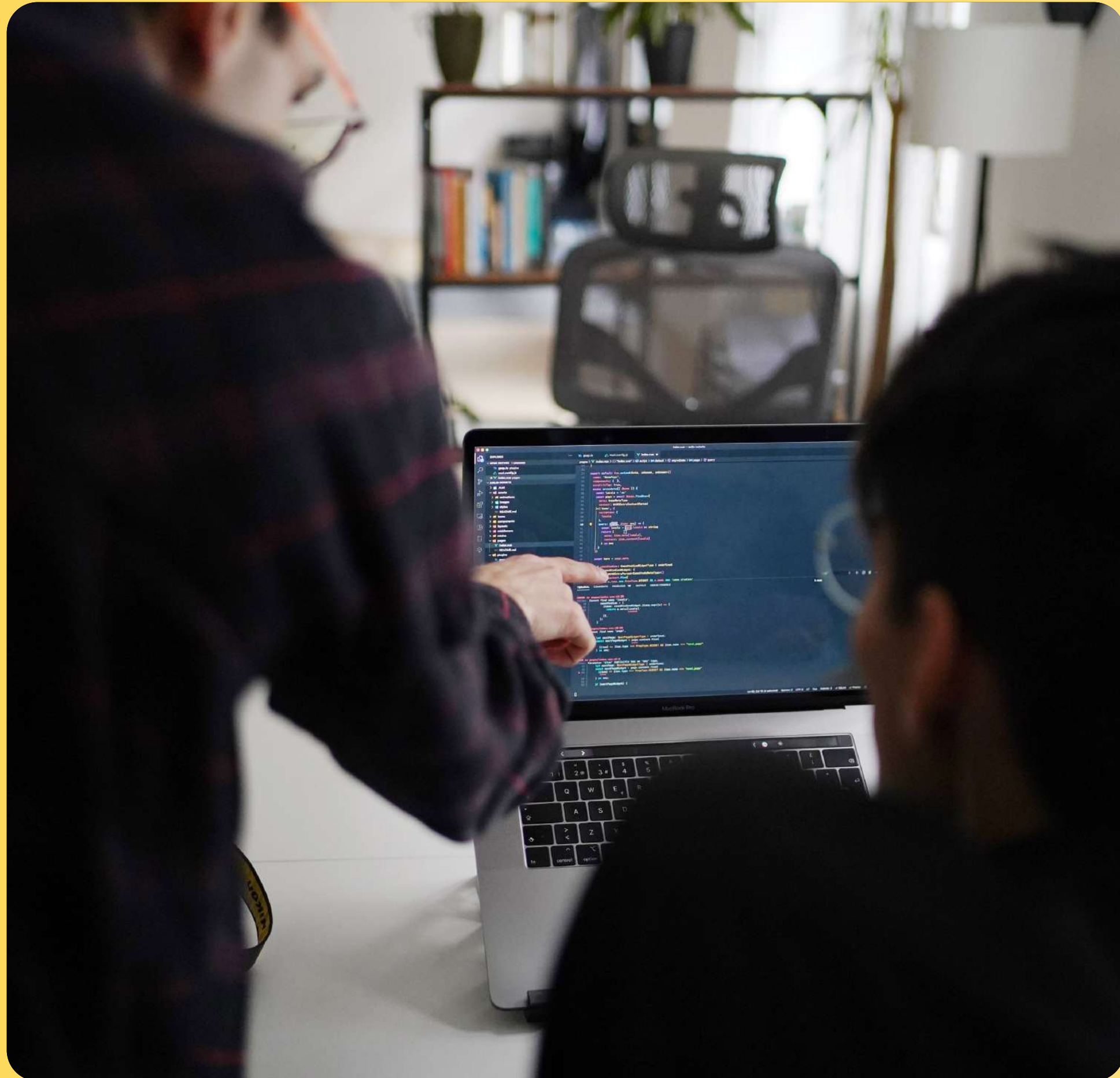
On top of that, due to a rapid increase of project resources, the decision was made to migrate the project from the regular cloud (AWS) to the private cloud environment in order to save infrastructure (services) costs

A screenshot of a code editor with a dark theme. The file explorer on the left shows a directory structure: 'src > components > sidebar > sidebarComponent.svelte'. The main editor area displays the code for 'sidebarComponent.svelte'. The code includes imports for 'sidebarController' from './sidebarController.js', 'mementoes' from '../store.js', and './sidebar.scss'. It features a Svelte component structure with a 'div' class 'sidebar' containing a 'button' class 'add-memento' and a 'ul' class 'mementoes'. The 'ul' contains a list of 'li' elements, each with a class 'memento-item' and a click event handler that calls 'sidebarController.selectMemento(memento.title)'. The code is syntax-highlighted with various colors for tags, attributes, and values. Line numbers 1 through 8 are visible on the left side of the code block.

```
1 <script>
2   import sidebarController from './sidebarController.js';
3   import mementoes from '../store.js';
4   import './sidebar.scss';
5 </script>
6
7 <div class="sidebar">
8   <button class="add-memento" on:click={sidebarController.addMemento}>Add Memento</button>
9
10  <ul class="mementoes">
11    {#each $mementoes as memento}
12      <li class="memento-item" class:active={memento.isActive} on:click={() => sidebarController.selectMemento(memento.title)}>{memento.title}</li>
13    {/each}
14  </ul>
15 </div>
```

# Client requirements

- Plan out and conduct smooth project migration;
- Adjust business-efficient system monitoring;
- Provide convenient remote client-side communication with the dev team;
- Cut the project infrastructure budget as much as possible;
- Grant reliable tech support;
- Implement project optimization tasks based on the major scaling plan





# Solution

1

Configured Prometheus+Grafana services on the basic level and approved a number of the desired metrics to be included in the dashboard

2

Described the logic via Ansible roles which we integrated with the general playbook

3

Optimized the performance of a centralized logging system – ELK – in order to lower resource consumption rates

4

Analyzed infrastructure metrics and added new custom indicators to the dashboard to be used by the client's team

5

Prepared automations for new dedicated infrastructure deployment

6

Prepared Ansible playbooks for necessary services and finalized the project migration plan

7

Moved high-load databases and re-initiated the project deployment flow

8

Switched domains and launched the production stage

9

Currently, we are handling preparations for migrating the whole project to Kubernetes



# Handy

## Handy.ai

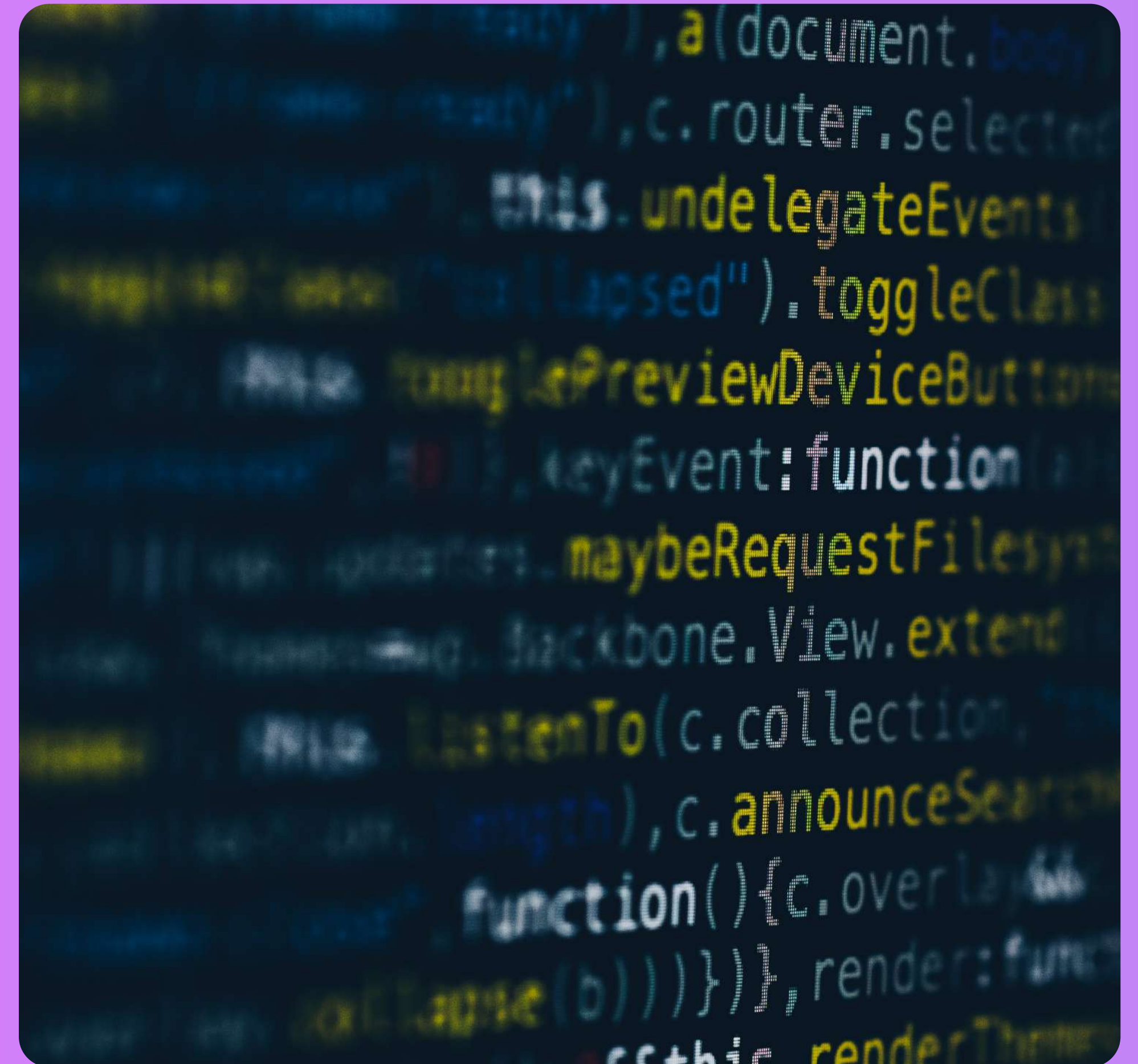
DevOps workflow assistance, including cloud infrastructure budget optimization (migration from AWS), implementation of GitOps approach for CI/CD and new services, maintenance of clusters, support of the in-house dev team, and end product deployment

# Challenge

The client owns a successful Ukrainian startup currently focused on scaling over the local market and reinforcing positions in the rest of Europe.

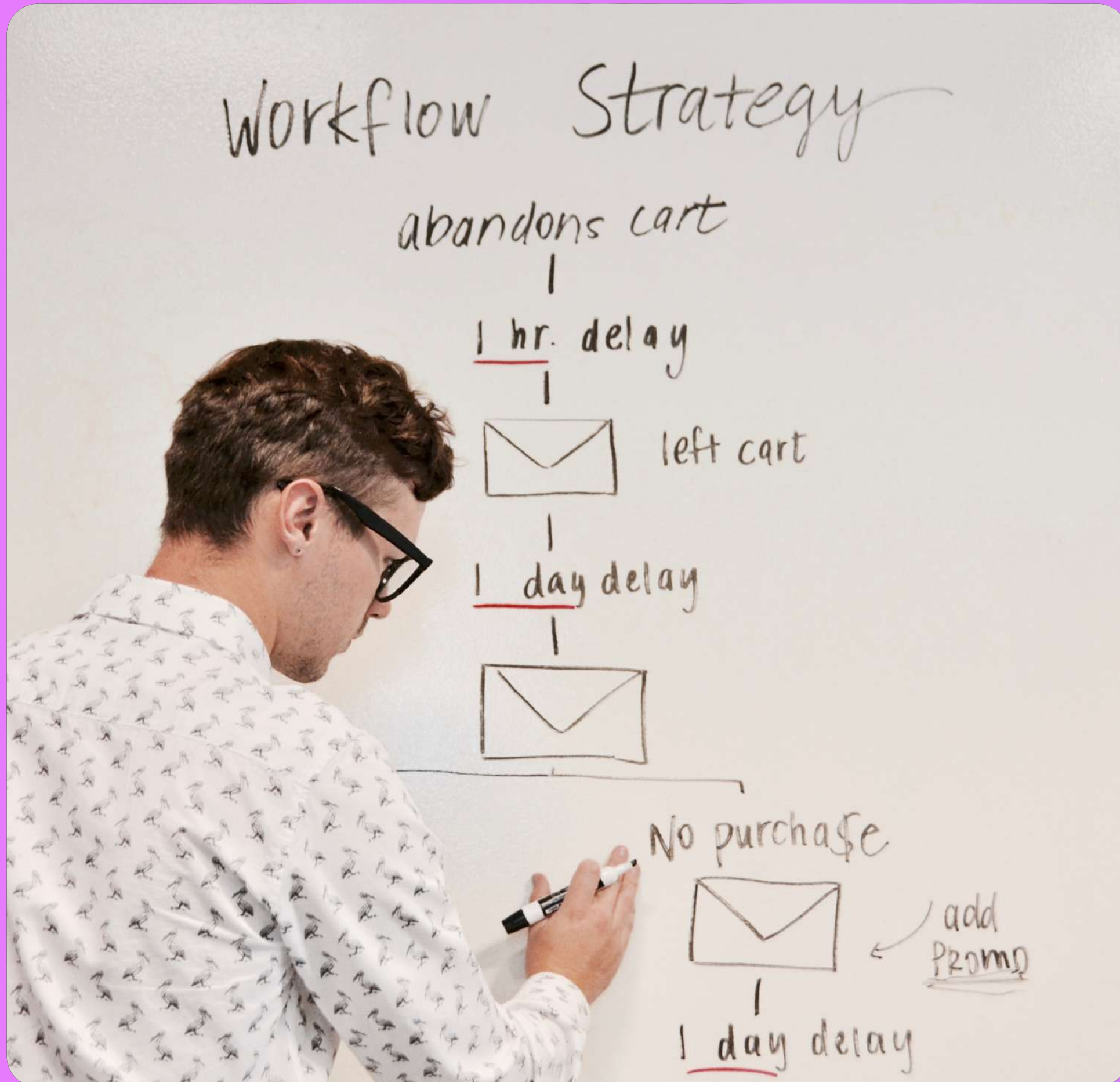
The main hardship for the client's team was the complete lack of the DevOps input needed to better support clusters, manage resources, and ensure automatic product deployment (including automated deployment and updates at the customers' facilities).

To fix that, the client required our team to migrate the project's internal infrastructure and provide further assistance in reducing the cloud services budget





# Client requirements



- To provide a universal DevOps assistance and consulting team;
- To standardize product deployment processes;
- To conduct fast onboarding for dev teams and SDLS projects;
- To boost the efficiency of resource utilization and infrastructure costs management;
- To help plan out product deployment among the end customers and support projects;
- To centralize access rights management and optimize project security;
- To employ the infrastructure-as-code approach, without vendor lock-in

# Solution

1

We kicked things off with the detailed audit of the project's internal infrastructure and recommendations alignment

2

The first tech task was to configure resourcing limits, cluster priority classes, and healthchecks for each service

3

Next, we adjusted the metrics server for the cluster and set up its thorough monitoring via dashboards with metrics and alerts

4

Then, we optimized the cluster scaling and resource utilization in AWS based on the preliminary investigation and metrics analysis

5

With enough budget capacities in hand, the decision was made to migrate the project infrastructure to another provider's platform, which resulted in x4 infrastructure budget reduction

6

We also introduced a GitOps approach to CI/CD processes, divided build and deployment processes, implemented code versioning (the BitBucket pipeline was migrated and adapted to CircleCI), and enabled cluster deployment via Flux (currently, we are at phase 2 of migrating to the 2nd version of Flux)

7

Other major tasks included assisting product deployment among end customers, which included preparing cloud provider capacities, deploying environments (clusters), deploying services, setting up monitoring capabilities, etc.

8

We implemented all the services mentioned above in the Stack of tasks section

9

We continue maintaining internal development processes and assisting developers

10

We also analyze metrics and conduct regular maintenance checks



# Kontakt Home

Modern ecommerce marketplaces are extremely popular, user-packed solutions that are so demanded for the ultimate convenience of bridging the gap between independent vendors and regular online shoppers



# Challenge

The client approached us with a successfully running Azerbaijan-based marketplace that needed proper scaling for extension outside the local market and over the international arena (namely, over other Asian countries).

The global task was to set up a failsafe marketplace infrastructure with opportunities for flexible scaling in high-load traffic conditions. For this, we set out to create a project architecture from scratch, integrate DevOps approaches with the workflow of backend and frontend development teams, and more.

Going more in-depth, we needed to leverage the powers of Magento to automate deployments at the smallest downtime, work with next to no clear documentation, and absolutely no previous DevOps input for more efficient cluster support, resource management, and automated deployments/updates on the customer side.

This also posed a big task to migrate the internal infrastructure of the project and optimize the cloud management budget







## Client requirements

- To provide a universal DevOps assistance and consulting team;
- To standardize product deployment processes;
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- To boost the efficiency of resource utilization and infrastructure costs management;
- To centralize access rights management and optimize project security;
- To employ the infrastructure-as-code approach without vendor lock-in

# Solution

1

The project was kicked off with a detailed study of project failproofness requirements to see where we can offer better solutions infrastructure-wise

2

The initial technical task was to dockerize the project's backend and frontend pieces

3

After that, we went on to deploy a Kubernetes cluster in MS Azure and set up third-party infrastructure services like Redis, ElasticSearch, etc. We also configured a Kubernetes-native service for storing and processing media data, adapting Magento to interact with this solution along with the client's dev team

4

Then, we configured the server for gathering cluster metrics and set up its thorough monitoring via dashboards with respective metrics and a configured logging system

5

We employed a GitOps approach to automate CI/CD processes, split up assembly and deployment processes, implemented code version management via Azure DevOps, and configured cluster deployment via Flux

6

After we successfully deployed the test version of the application and ERP/banking integration configurations, we conducted load testing and implemented basic configuration of tools for infrastructure autoscaling

7

Continuing testing, a bunch of solutions for stress testing was also set up in Azure with the testing-on-demand opportunity

8

Among other crucial tasks was also configuration of additional clusters and deployments for different project localizations

9

Right now, we continue to support internal development processes and aid client's devs - namely, we are improving the Blue-Green deployment CI/CD process in order to minimize the deployment time and eliminate downtime possibilities among end customers

# Contact us

Are you looking for in-depth experienced specialists to migrate your legacy system and handle your project architecture and infrastructure all-around based on the market-defining practices? Then we certainly have the expertise and profiled experience to offer. Contact us right now to discuss the specifics of your project and find out what you can ultimately get with our efforts put to work for your benefit