

# SERVICES: DEVOPS

Continuous adaptation to the market changes requires a team to be dynamic and able to deliver the product frequently and predictably. Our DevOps teams are working collaboratively throughout the product lifecycle to increase the speed and quality of software development. This results into predictable quality releases to your customers.



Our specialists implement and adapt DevOps strategies so that our clients benefit from the positive effect on their business. The key is to bring code changes to the market as fast as possible and we achieve this by creating **reusable continuous delivery pipelines, fully automating the build, test, and deployment processes**. Afterwards, when changes are running in a production environment, our engineers monitor complex infrastructures using specialized tools to assess system stability, security, and performance, but also act when needed.

When it comes to coding practices, our DevOps engineers setup projects so they go through **static code analysis tools**, ensuring best practices are followed, but also any security liabilities are avoided. At the same time, our teams are well-versed **in setting up complex cloud infrastructures, usually working with infrastructure-as-code tools such as Terraform or CloudFormation, to provision cloud setups in Microsoft Azure, AWS and Google Cloud.**

**Through DevOps practices, our specialists are experienced with:**

- **Define and manage cloud infrastructures (Microsoft Azure, Amazon Web Services) through code.** Even if it is as new project or migrating a solution from an on-premise infrastructure to cloud, our engineers know how to model resources, their dependencies and configurations in an easily-maintainable infrastructure as code system (e.g. Terraform, CloudFormation, etc.). This allows us the ability to change infrastructure easily and predictably, reconfigure resources, setup load balancing, decommission environments, etc.
- **Automate the execution and management of builds.** There is a plethora of build systems on the market and we're confident in saying we have used most of them. From Azure Devops to Jenkins and Bitrise, our engineers ensure that once a code change is integrated in the main codebase, it will be automatically built, tested, and reported on.

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- **Automate the creation and management of releases.** Once a feature change is developed and validated, it needs to be released to the userbase in a consistent and reliable process, ideally with zero-downtime. Our teams achieve this through multiple approaches, such as Blue-Green deployments, Canary deployments or Rolling deployments. They each have pros and cons and we choose a suitable method based on the specific needs of the client.
- **Optimize / redesign an infrastructure for established platforms considering a target budget.** Technology constantly evolves and today's cutting edge cloud service can be tomorrow's runner-up. Out of the need to optimize and innovate current services being used in live platforms, richer alternatives are constantly released and with them, we often see that a complex infrastructure designed years ago can now be achieved through newer services, offering a larger variety of features, usually at a lower price (e.g., for some of our clients our DevOps team has decreased the infrastructure costs by 40%). For our clients, we like to go through the full journey of analyzing the current infrastructure setup, designing a more efficient one, but also drawing up the upgrade path, step-by-step.
- **Facilitate wide-scale releases of new products.** When a new product is getting close to its release, it typically needs to be validated against a smaller, controlled audience. This allows for an easy feedback loop by shortening communication lines, running usability testing, A/B testing, as well as implementing changes and revalidating them. In the meantime, the wider release is being prepared, focusing on all sides of running a live product to a large audience. Firstly, we work on configuring accurate monitoring systems – logs, alerts – using tools such as Nagios, ELK stack, Grafana, Splunk, CloudWatch, Azure monitor, etc. At the same time, our specialists react on potential issues, ultimately rolling out adjustments. In this phase, we they also run performance tests (Through various stress testing and load testing techniques) to ensure load-balancing is working as it should, the system is stable and reliable but can also properly handle issues.

Our specialists document all processes, activities, and tasks involved in the DevOps process. Therefore, our team is prepared to train our client's DevOps team and handover all necessary tasks so that the system continues to operate normally, without any downtime or other service malfunctions.