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Steps how we delivered *exceptional value* to vodafone

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Monolithic to Microservices **Application Modernization**

Transforming an application from a monolithic to a microservices architecture is a daunting task, **with the challenge of determining where to begin**. Monolithic applications, combining database, client-side interfaces, and server-side elements in a single executable, are complex and hard to grasp, even for administrators.

Today's customer expectations **can't tolerate tightly coupled dependencies, deployment difficulties, or long release cycles**. Consequently, organisations are steering away from monolithic architectures and embracing event-driven microservices. However, this shift poses its own set of challenges and complexities.

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Understand the Monolith

Vodafone needed ALERON IT to modernize their legacy monolithic platform to a Microservices-based architecture for a **Fleet Management System**. The system had to communicate with several external systems.

Creating new functionality for their monolithic application was too costly, time-consuming, and complicated. **Even minor changes dramatically affected other parts of the system, so release cycles were several weeks for even the slightest change.**

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Identify the Scope of Project

The old, obsolete application had to be **migrated to** a system based on modern **CI/CD** technologies, **with a VueJS front-end and a Java-based Microservices back-end.**

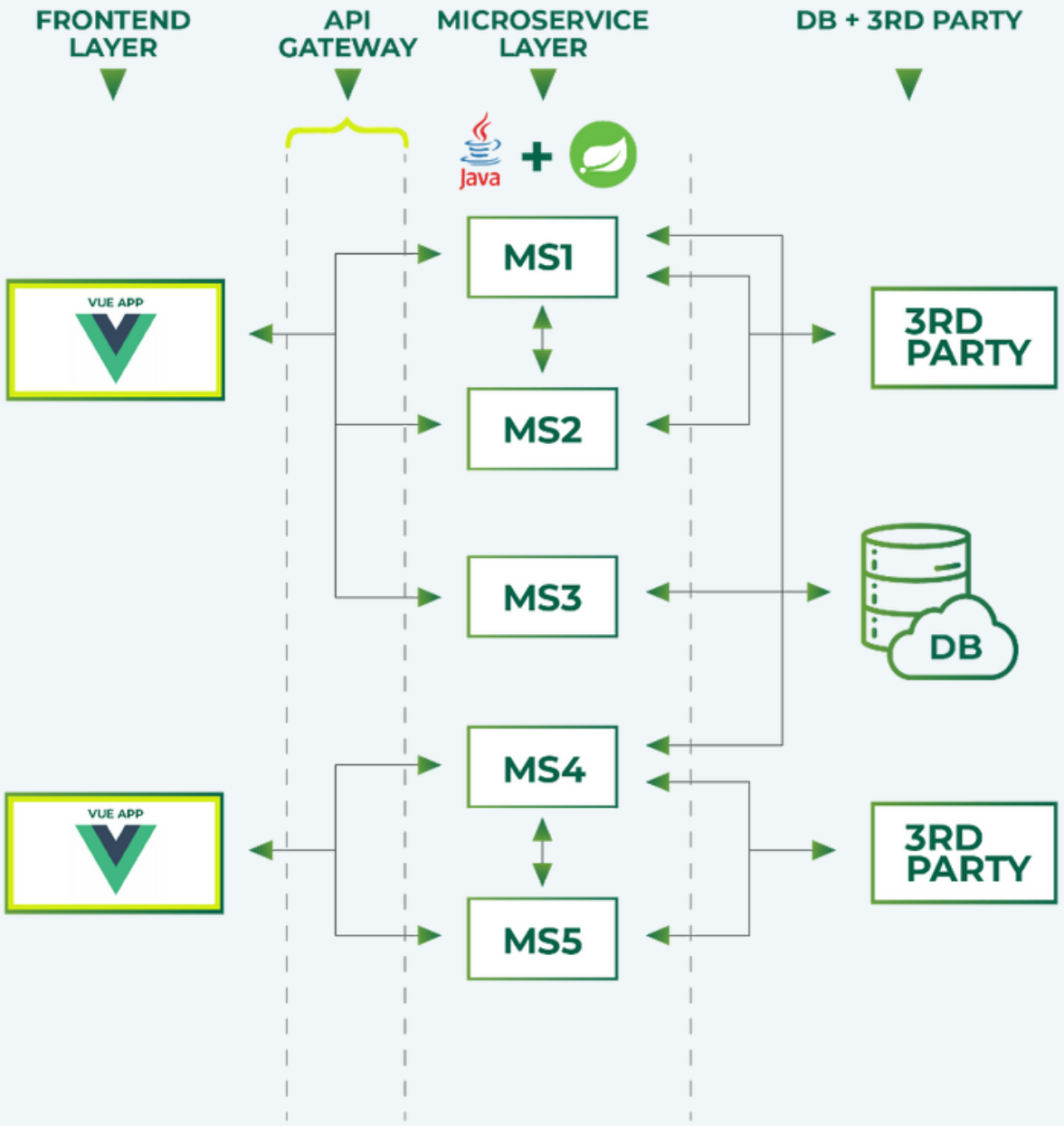
This required simplification of **complex processes that had to be streamlined**. Vodafone relied upon ALERON IT's guidance to make the necessary shift towards a modern software development mindset.

Identify Security and Scalability Challenges

During the project, we had to work with the client's security experts, as we had to meet strict security guidelines. DevOps processes were followed, with **tight integration with the Customer Ops team.**

The scalability requirements of a Tier 1 Mobile Network Operator **were considerable**. The CI/CD pipeline would recognize if the load on the back-end pods was getting too high and would automatically create a new pod.

4 Create the Project Plan



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Project Execution

The project plan was developed over a period of 6 months with the collaboration of 3 of our colleagues and 2 experts from Vodafone™.

The client's management team was highly involved during the entire project, which helped us to ensure that we were on the right track.

We used the **Scrum development method**, starting with the **prototype phase, which took 1 month** to complete. The prototype was presented to the management team, providing them with an **overview of the planned functionality and UI/UX**. From there, **every sprint focused on developing 1 functionality**, which was tested by the client at the end of each sprint to ensure that everything was meeting their requirements.

After demoing all the planned and developed features, the **application was launched within the planned budget and deadline.**

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Project Outcome

Vodafone benefitted greatly from the microservices application modernization performed by ALERON IT.

- **Trivial bug fixes were added in minutes (vs. days)**
- **Deployment velocity was increased by 1000%**
- **Customer churn was reduced dramatically**
- **Operational and eng. overhead was decreased by 50%**
- **One more succesaful client project for us :)**