

# Loan management system for leading fintech

Digital Loan Management for the Evolving Financial Landscape

A leading US lending institution offers rapid digital loans, aiming to empower the New Middle Class. SiliconMint's assistance facilitated their smooth transition to an enhanced technical platform, boosting processing capacity, consumer metrics and internal business KPIs.

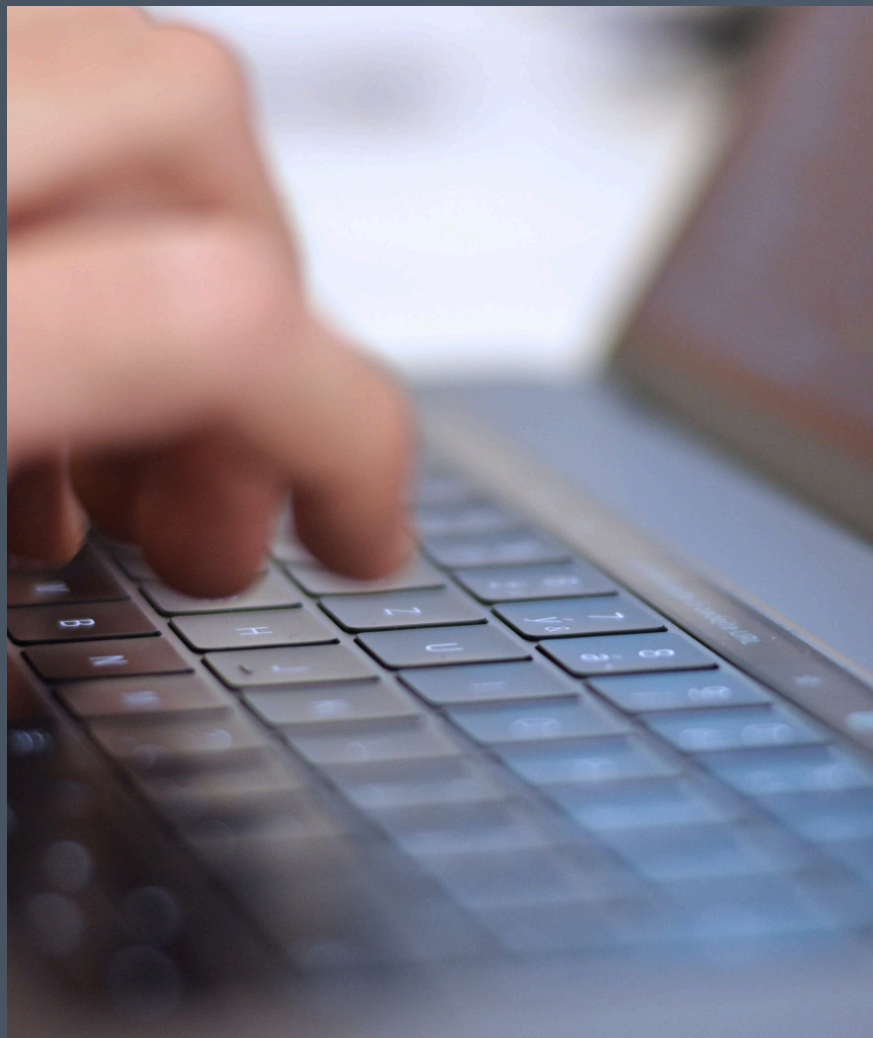


# The challenge

## Business

SiliconMint's primary business objective was to seamlessly integrate new products into our customer's offerings, aligning with strategic goals such as migrating from the .Net Framework to the new .Net Core platform, refactoring and rearchitecting existing systems, and building out new lending products.

This transition was not just a technological upgrade but also a strategic move to position the company for future growth and versatility in its product offerings.



## Technical

On the technical front, our aim was to boost overall system efficiency, especially during high demand periods. By maximizing throughput, we were able to handle tasks more swiftly.

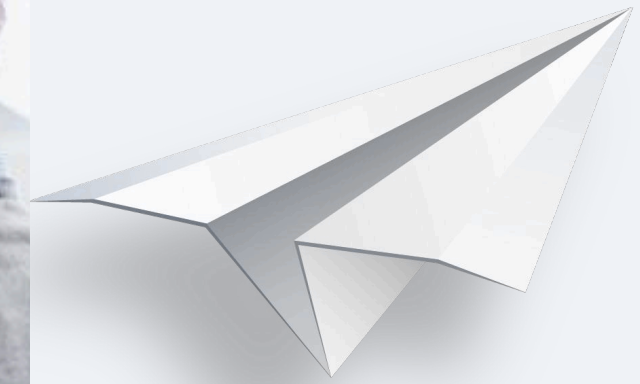
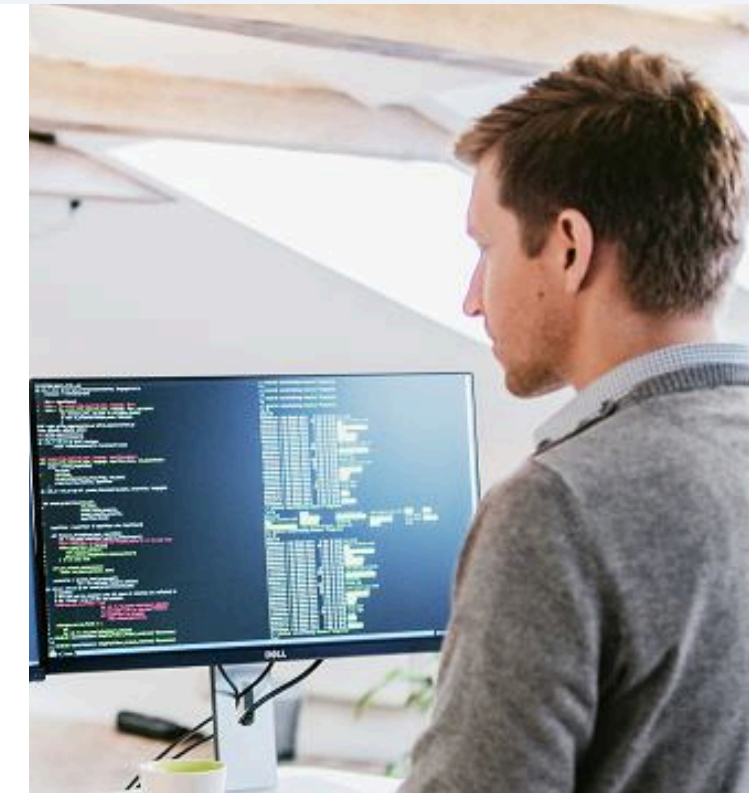
This proactive optimization was crucial for maintaining a seamless user experience during peak times, ensuring effective management of system resources and capabilities.

A significant part of this technical shift included a focus on machine learning (ML) to enhance data analysis and pattern recognition, thereby improving decision-making processes.

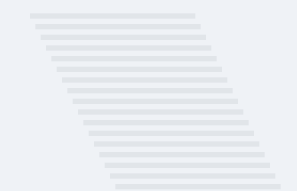
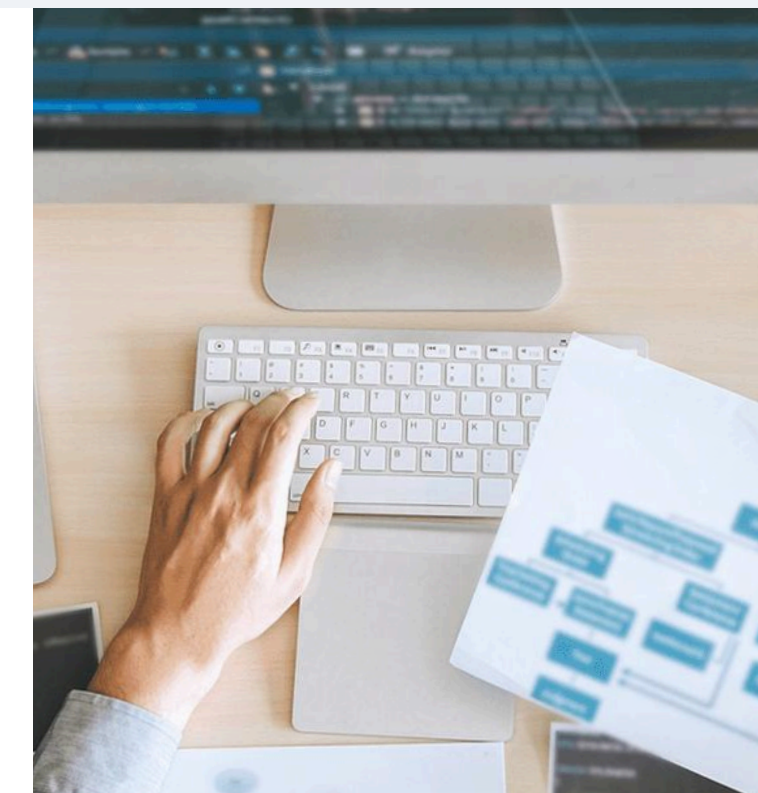


## Solution

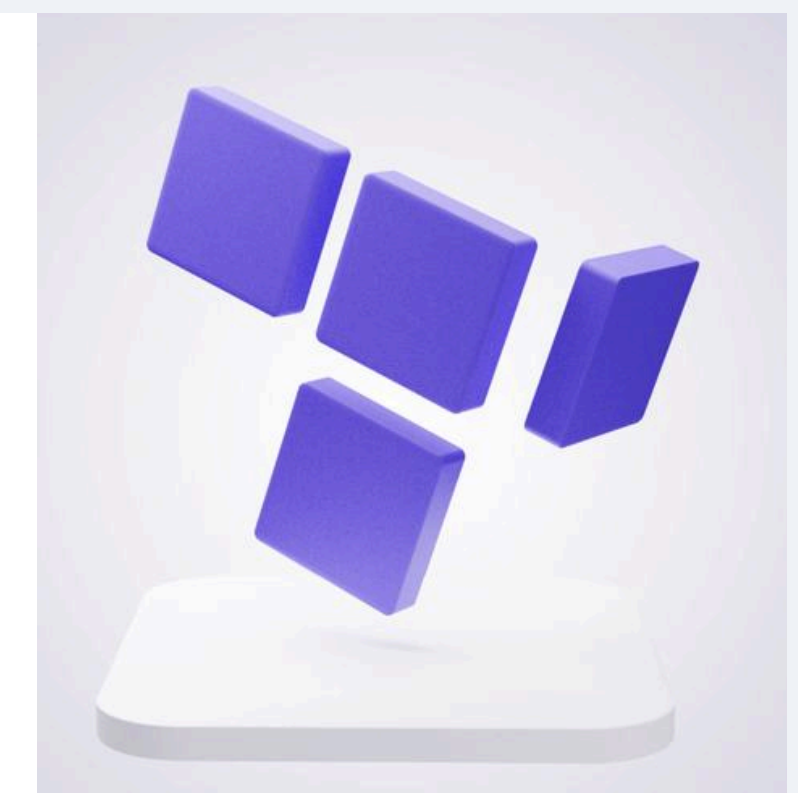
SiliconMint adopted a microservice architecture to deconstruct a monolithic application. This approach not only enabled scalability in the solution but also provided the freedom to selectively deliver specific functionalities. We no longer needed to deploy the entire system when it wasn't necessary, thereby enhancing efficiency.

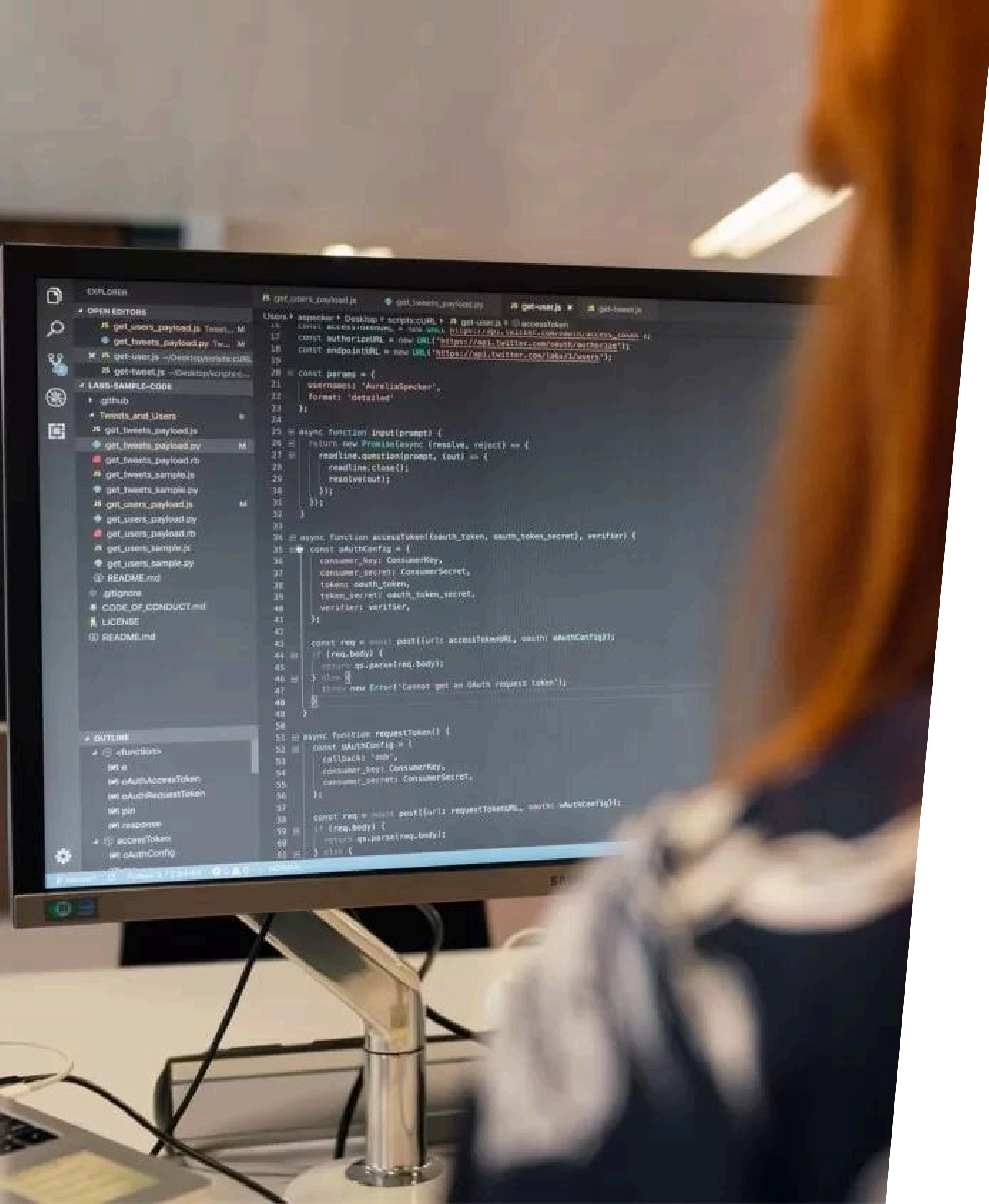


SiliconMint established a systematic process for a smooth transition from one architecture to another. We continued to develop new features even as the split was underway, showcasing SiliconMint's dedication to meeting current demands while preparing for the future's technological landscape.



SiliconMint spearheaded the development of terraform scripts, a pivotal advancement that significantly transformed our operational landscape. This innovation delivered numerous advantages, enabling us to be cloud-agnostic and to effortlessly generate on-demand environments, such as per-feature testing environments, and to swiftly remove them when no longer necessary.





Firstly, by harnessing terraform scripts, we achieved cloud agnosticism. This enabled us to seamlessly transition between different cloud providers without extensive modifications. The versatility to adapt to varying cloud platforms resulted in enhanced flexibility and reduced dependency on any single cloud service.

Moreover, our implementation of terraform scripts empowered us to dynamically generate environments on-demand. For instance, we could promptly spin up dedicated testing environments tailored to specific features or components.

In essence, SiliconMint's utilization of terraform scripts revolutionized our infrastructure management. It bolstered our adaptability across cloud providers and facilitated the swift provisioning and deprovisioning of specialized environments, amplifying our overall development agility and effectiveness.



## Solution



Configured CI/CD as we transitioned to Azure DevOps and Azure Cloud, meticulously designing and setting up well-defined CI/CD pipelines. This streamlined our development process, enabling efficient planning, development, testing, and deployment of applications.



Moved from .NET Framework to .NET Core. We leveraged enhanced performance, modern features, and broader cross-platform compatibility offered by .NET Core.



Removed expensive and outdated SaaS solutions. To reduce costs, we replaced the pricey Provenir loan engine with a bespoke .NET solution. During our shift to Azure Cloud, we swapped jFrog for Azure Artifacts and replaced MuleSoft Anypoint with Azure API Management, thereby streamlining our infrastructure.

# Positive Feedbacks

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I just wanted to reach out and give a shout out about Sergey. I wanted to let you know he's a great engineer to hold on to. He did a great job as part of the team as the 1 off-shore QA resource even up to his last day on the team. Before he rolled off, he went out of his way to complete the testing for us which allowed the team to keep to their release date. Sergey also took some of his time to get Alex up and running with KT, which was great.

**CIO**

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Congratulations Evgeniy, our MVP for The Crew. Evgeniy constantly sets the bar high:

- Thinking out of the box when it comes to quality assurance (QA)
- Working smart
- Staying flexible to help support the sprint goals
- Most importantly, rocking a bowtie

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Thank you for the kind words, Tatyana. You have been such a pleasure to work with. You're awesome at your job and truly a critical component of this team. Wanted to say thank you for the hard work you've put in for our team. I know you are doing a lot for us and it is appreciated. -

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# Processes in the company

We transformed every step of software development in the company, from requirements creation to feature delivery. This transformation represented a fundamental shift in our approach to processes and goals, moving towards a more dynamic and agile methodology focused on feature delivery.

## Results

Throughput of customer requests increased

**400%** (250k requests per month)

Expenses to support infrastructure decreased by

**46%**

Decreased time of possible outage of our system due to moving to more robust Cloud Infrastructure at least at

**99%** (from 5 downtimes per month to 1 per year)



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# Architecture

